

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☐  
(highlight changes)

<b>APPLICATION FOR PERMIT TO DRILL</b>				5. MINERAL LEASE NO: n/a (Fee)	6. SURFACE: Fee
1A. TYPE OF WORK: DRILL <input checked="" type="checkbox"/> REENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/>				7. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
B. TYPE OF WELL: OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> OTHER _____ SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>				8. UNIT or CA AGREEMENT NAME:	
2. NAME OF OPERATOR: Enduring Resources, LLC				9. WELL NAME and NUMBER: Rainbow 11-24-12-20	
3. ADDRESS OF OPERATOR: 475 17th St., Ste 1500 CITY Denver STATE CO ZIP 80220			PHONE NUMBER: (303) 350-5114	10. FIELD AND POOL, OR WILDCAT: Undesignated	
4. LOCATION OF WELL (FOOTAGES)  AT SURFACE: 618' FWL - 1,795' FNL AT PROPOSED PRODUCING ZONE: Same				11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWNW 20 11S 24E S	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 66 miles southeast of Vernal, UT				12. COUNTY: Uintah	13. STATE: UTAH
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) 618'		16. NUMBER OF ACRES IN LEASE: 160		17. NUMBER OF ACRES ASSIGNED TO THIS WELL: 40 acres	
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET) 1,800' +		19. PROPOSED DEPTH: 6,415		20. BOND DESCRIPTION: RLB0008031	
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): 5868' KB-RT		22. APPROXIMATE DATE WORK WILL START: 1/25/2006		23. ESTIMATED DURATION: 20 days	

24. PROPOSED CASING AND CEMENTING PROGRAM							
SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT			SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT		
20"	14" line pipe			40	3 yards Ready Mix		
11"	8-5/8"	J-55	24#	2,016	Premium Lead	138 sxs	3.50 11.1
					Premium Tail	138 sxs	1.15 15.8
7-7/8"	4-1/2"	N-80	11.6#	6,416	Class G	52 sxs	3.3 11.0
					50/50 Poz Class G	752 sxs	1.56 14.3

25. ATTACHMENTS	
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:	
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER <input checked="" type="checkbox"/> EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER	<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN <input type="checkbox"/> FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER

CONFIDENTIAL


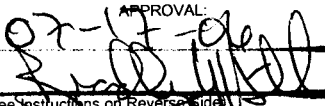
NAME (PLEASE PRINT) Alvin R. (Al) Arlian TITLE Landman - Regulatory Specialist

SIGNATURE  DATE 11/30/2005

(This space for State use only)

API NUMBER ASSIGNED: 43-047-37461

**Approved by the**  
**Utah Division of**  
**Oil, Gas and Mining**

APPROVAL:   
Date: 07-17-06  
By: 

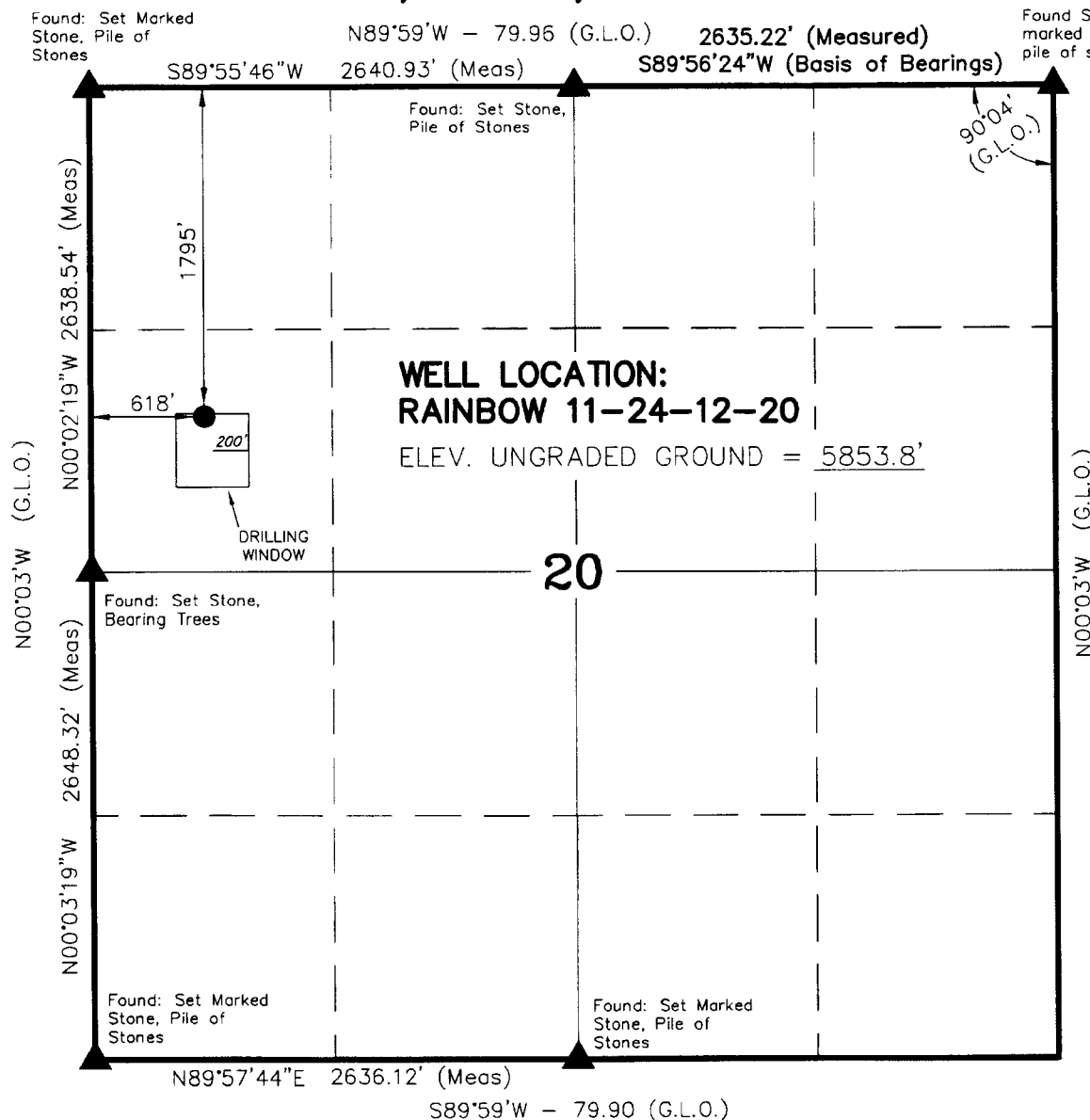
(See Instructions on Reverse Side)

**RECEIVED**  
**DEC 02 2005**

DIV. OF OIL, GAS & MINING

# T11S, R24E, S.L.B.&M.

## ENDURING RESOURCES



WELL LOCATION, RAINBOW 11-24-12-20,  
LOCATED AS SHOWN IN THE SW 1/4 NW  
1/4 OF SECTION 20, T11S, R24E,  
S.L.B.&M. UTAH COUNTY, UTAH.

### NOTES:

1. Well footages are measured at right angles to the Section Lines.
2. Bearings are based on Global Positioning Satellite observations.

### DISTANCE TO NEAREST WELL

FROM WELL	TO WELL	COURSE	DISTANCE
11-24-12-20	11-24-11-20	N2°10'45"W	952'

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS  
PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS  
MADE BY ME OR UNDER MY SUPERVISION AND THAT  
THE SAME ARE TRUE AND CORRECT TO THE BEST OF  
MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR  
REGISTRATION NO. 152251  
STATE OF UTAH  
KOLBY R. KAY

▲ = SECTION CORNERS LOCATED

BASIS OF ELEVATION IS BENCH MARK 89 EAM 1965  
LOCATED IN THE WEST 1/2 OF SECTION 5, T12S,  
R24E, S.L.B.&M. THE ELEVATION OF THIS BENCH  
MARK IS SHOWN ON THE ARCHY BENCH SE 7.5 MIN.  
QUADRANGLE AS BEING 6075'.

RAINBOW 11-24-12-20  
(Proposed Well Head)  
NAD 83 Autonomous  
LATITUDE = 39° 50' 59.30"  
LONGITUDE = 109° 15' 42.76"

**TIMBERLINE LAND SURVEYING, INC.**  
38 WEST 100 NORTH. - VERNAL, UTAH 84078  
(435) 789-1365

DATE SURVEYED: 10-11-05	SURVEYED BY: B.J.S.	SHEET 2 OF 10
DATE DRAWN: 10-12-05	DRAWN BY: C.B.T.	
SCALE: 1" = 1000'	Date Last Revised:	

***ENDURING RESOURCES, LLC***

**425 Seventeenth Street, Suite 1500**

**Denver, Colorado 80202**

**Telephone: 303-573-1222**

**Facsimile: 303-573-0461**

November 30, 2005

State of Utah  
Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt lake City, Utah 84114-5801

Attention: Diana Whitney

**RE: Rainbow 11-24-12-20  
Application for Permit to Drill**

Dear Ms. Whitney

Attached are two original applications to drill for the above-referenced proposed well.

Also enclosed is a (blacked out) surface owner agreement.

Enduring Resources, LLC respectfully requests that this information, and future information, be held confidential.

Should you have any questions concerning this matter, please do not hesitate to call (303-350-5114)

Very truly yours

**ENDURING RESOURCES, LLC**



Alvin R. (Al) Arlian  
Landman – Regulatory Specialist

ara/

Attachments as stated:

RECEIVED

DEC 02 2005

DIVISION OF OIL, GAS & MINING

**Enduring Resources, LLC  
Rainbow 11-24-12-20  
SWNW Sec 20 T11S-R24E  
Uintah County, Utah  
Lease #: Fee**

**ONSHORE ORDER 1 - DRILLING PLAN**

**1. Estimated Tops of Geological Markers:**

Formation	Depth (K.B.)
Uinta	Surface
Green River	543'
Wasatch	2695'
Mesaverde	4262'
Castlegate	6444'

**2. Estimated Depths of Anticipated Water, Oil, Gas or Other Minerals: (5867.5' estimated KB)**

Substance	Formation	Depth (K.B.)
	KB-Uinta Elevation: 5868'	
Oil / Gas	Green River	543'
Oil /Gas	Wasatch	2695'
Oil /Gas	Mesaverde	4262'
	Castlegate	6444'
	Estimated TD	6415'

**3. Pressure Control Equipment: (3000 psi schematic attached)**

- A. Type: Eleven (11) inch double gate hydraulic BOP with eleven (11) inch annular preventer on 3,000 psi casinghead, with 3,000 psi choke manifold equipped per the attached diagram. BOPE as specified in *Onshore Oil & Gas Order Number 2*. A PVT, stroke counter and flow sensor will be installed to check for flow and monitor pit volume.
- B. Pressure Rating: 3,000 psi BOPE
- C. Kelly will be equipped with upper and lower Kelly valves.
- D. Testing Procedure: Annular Preventer

At a minimum, the annular preventer will be pressure tested to 50% of the stack rated working pressure for a period of ten (10) minutes or until provisions of the test are met, whichever is longer.

At a minimum, the above pressure test will be performed:

1. When the annular preventer is initially installed;
2. Whenever any seal subject to test pressure is broken;
3. Following related repairs; and
4. At thirty (30) day intervals.

In addition to the above, the annular preventer will be functionally operated at least weekly.

#### Blow-Out Preventer

At a minimum, the BOP, choke manifold, and related equipment will be pressure tested to the approved working pressure of the BOP stack (if isolated from the surface casing by a test plug) or to 70% of the internal yield strength of the surface casing (if the BOP is not isolated from the casing by a test plug). Pressure will be maintained for a period of at least ten (10) minutes or until the requirements of the test are met, whichever is longer.

At a minimum, the above pressure test will be performed:

1. When the BOP is initially installed;
2. Whenever any seal subject to test pressure is broken;
3. Following related repairs; and
4. At thirty (30) day intervals.

In addition to the above, the pipe and blind rams will be activated each trip, but not more than once each day. All BOP drills and tests will be recorded in the IADC driller's log.

#### E. Miscellaneous Information:

The blowout preventer and related pressure control equipment will be installed, tested and maintained in compliance with the specifications in and requirements of *Onshore Oil & Gas Order Number 2*.

Single Shot directional surveys will be dropped every 2000 feet. Maximum allowable angle is 5 degrees.

#### 4. Proposed Casing & Cementing Program:

##### A. Casing Program: All New

Hole Size	Casing Size	Wt./Ft.	Grade	Joint	Depth Set (MD)
20"	14" O.D.				40' (GL)
11"	8-5/8"	24#	J-55	ST&C	0 – 2,016' (KB) est.
7-7/8"	4-1/2"	11.6#	N-80	LT&C	0 – 6,415' (KB)

The surface casing will have guide shoe, 1 joint, insert float collar. Centralize the shoe joint with bowspring centralizers in the middle and top of the joint and the next 16 joints with bowspring centralizers on every other collar (8 centralizers total). Thread lock guide shoe.

Casing string(s) will be pressure tested to 0.22 psi/foot of casing string length or 1500 psi, whichever is greater (not to exceed 70% of the internal yield strength of the casing), after cementing and prior to drilling out from under the casing shoe.

#### B. Casing Design Parameters:

Depth (MD)	Casing	Collapse(psi)/SF	Burst (psi)/SF	Tension(mlbs)/SF
40' (GL)	14" OD			
2016' (KB)	8-5/8", 24#/ft, J55, STC	1370/1.52(a)	2950/3.28(b)	244/5.81(c)
6415' (KB)	4-1/2", 11.6#/ft, N-80, LTC	6350/1.91 (d)	7780/2.54 (e)	223/3.49 (f)

- (a.) based on full evacuation of pipe with 8.6 ppg fluid on annulus
- (b.) based on 8.6 ppg gradient with no fluid on annulus
- (c.) based on casing string weight in 8.6 ppg mud
- (d.) based on full evacuation of pipe with 10.0 ppg fluid on annulus
- (e.) based on 9.2 ppg gradient, gas to surface, with no fluid on annulus, no gas gradient
- (f.) based on casing string weight in 9.2 ppg mud

#### PROPOSED CEMENTING PROGRAM

##### Surface Casing (if well will circulate)-Cemented to surface

CASING	SLURRY	FT. of FILL	CEMENT TYPE	SXS	EXCESS (%)	WEIGHT (ppg)	YIELD (ft <sup>3</sup> /sx)
8-5/8"	Lead	1516	Premium cement + 16% gel + 0.25 pps celloflake	138	25%	11.1	3.50
8-5/8"	Tail	500	Premium cement + 2% CaCl <sub>2</sub> + 0.25 pps celloflake	138	25%	15.8	1.15

A cement top job is required if cement fallback is greater than 10' below ground level. Top job (weight 15.8 ppg, yield 1.15 ft<sup>3</sup>/sx) cement will be premium cement w/ 3% CaCl<sub>2</sub>.+0.25 pps celloflake. Volume as required

##### Surface Casing (if well will not circulate) - Cemented to surface

CASING	SLURRY	FT. of FILL	CEMENT TYPE	SXS	EXCESS (%)	WEIGHT (ppg)	YIELD (ft <sup>3</sup> /sx)
8-5/8"	Lead	500	Premium cement + 2% CaCl <sub>2</sub> + 0.25 pps celloflake	138	25	15.8	1.15
8-5/8"	Top job	As req.	Premium cement + 3% CaCl <sub>2</sub> + 0.25 pps celloflake	As Req.		15.8	1.15

**Production Casing and Liner** - Cemented TD to 300' above base of surface casing

CASING	SLURRY	FT. of FILL	CEMENT TYPE	SXS	EXCESS (%)	WEIGHT (ppg)	YIELD (ft <sup>3</sup> /sx)
4-1/2"	Lead	579	Class "G" + 5% NaCl + 12% Gel + 0.25 pps celloflake + 0.2% antifoam + 0.25% fluid loss + 1% extender	52	25	11.0	3.3
4-1/2"	Tail	4120	50/50 POZ Class G + 2% gel +1% CaCl <sub>2</sub> + 0.2% dispersant + 0.2% fluid loss + 0.1% antifoam	752	25	14.3	1.56

Cement volumes for the 4-1/2" Production Casing will be calculated to provide a top of cement to 300' above base of surface casing. Cement volumes are approximate and were calculated under the assumption that a gauge hole will be achieved. Actual cement volumes may vary due to variations in the actual hole size and will be determined by running a caliper log on the drilled hole. Actual cement types may vary due to hole conditions and cement contractor used.

All waiting on cement (WOC) times will be adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

**5. Drilling Fluids (mud) Program:**

Interval (MD)	Mud Weight	Fluid Loss	Viscosity	Mud Type
0' – 2016' (KB)		No cntrl		Air/mist
2000'-3000' (KB)	8.4-8.6	No cntrl	28-36	Water
3000'-6415' (KB)	8.8-10.2	8 - 10 ml	32-42	Water/Gel

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blowout will be available at the well site during drilling operations.

**6. Evaluation Program:**

Tests: No tests are currently planned.

Coring: No cores are currently planned.

Samples: No sampling is currently planned.

Logging

- Dual Induction – SFL /Gamma Ray/Caliper/SP/TDLT/CNL/ML  
TD to Base Surface Casing
- Cement Bond Log / Gamma Ray:  
TD to Base of Surface Casing or Top of Cement if below Base of Surface Casing

Stimulation: A stimulation or frac treatment will be designed for completion of this well based on openhole log analysis. The drill site, as approved, will be sufficient size to accommodate all completion activities.

7. **Abnormal Conditions:**

No abnormal temperatures or pressures are anticipated. No H<sub>2</sub>S has been encountered or known to exist from previous wells drilled to similar depths in the general area.

Maximum anticipated bottom hole pressure equals approximately 3,336 psi (calculated at 0.52psi/foot of hole) and maximum anticipated surface pressure equals approximately 1,925 psi (anticipated bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot of hole).

8. **Anticipated Starting Dates:**

- Anticipated Commencement Date- Within one year of APD issue.
- Drilling Days- Approximately 10 days
- Completion Days - Approximately 10 days
- Anticipate location construction within 30 days of permit issue.

9. **Variances:**

None anticipated

10. **Other:**

A Cultural Resource Inventory and Paleontology reconnaissance shall be conducted for the well location, access route and pipeline. The reports shall be submitted to the Division of Oil, Gas and Mining.



**ENDURING RESOURCES**  
**Rainbow 11-24-12-20**  
**SWNW - Section 20, T11S, R24E, S.L.B.&M.**

FROM THE INTERSECTION OF U.S. HIGHWAY 40 AND 500 EAST STREET IN VERNAL, UTAH PROCEED IN AN EASTERLY THEN SOUTHERLY DIRECTION ALONG U.S. HIGHWAY 40 APPROXIMATELY 3.3 MILES TO THE JUNCTION OF STATE HIGHWAY 45; EXIT RIGHT AND PROCEED IN A SOUTHERLY DIRECTION ALONG STATE HIGHWAY 45 APPROXIMATELY 40.5 MILES TO THE JUNCTION OF THE DRAGON ROAD (COUNTY B ROAD 4180). THIS ROAD IS LOCATED APPROXIMATELY 4.8 MILES SOUTH OF BONANZA, UTAH. EXIT LEFT AND PROCEED IN A SOUTHEASTERLY DIRECTION ALONG COUNTY B ROAD 4180 APPROXIMATELY 4.0 MILES TO THE JUNCTION OF THE KINGS WELLS ROAD (COUNTY B ROAD 4190). EXIT RIGHT AND PROCEED IN A SOUTHWESTERLY DIRECTION ALONG COUNTY B ROAD 4190 APPROXIMATELY 8.7 MILES TO THE JUNCTION OF THE ATCHEE RIDGE ROAD (COUNTY B ROAD 4270). CONTINUE ALONG COUNTY B ROAD 4190 IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 4.3 MILES TO THE JUNCTION OF THE LONG DRAW ROAD (COUNTY B ROAD 4260). CONTINUE ALONG COUNTY B ROAD 4190 IN A SOUTHERLY, THEN WESTERLY DIRECTION APPROXIMATELY 2.3 MILES TO THE JUNCTION OF A COUNTY D ROAD. EXIT RIGHT AND PROCEED IN A NORTHERLY DIRECTION ALONG THE COUNTY D ROAD APPROXIMATELY 3.7 MILES TO THE PROPOSED ACCESS ROAD. FOLLOW ROAD FLAGS IN A WESTERLY DIRECTION APPROXIMATELY 595 FEET TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 66.9 MILES IN A SOUTHEASTERLY DIRECTION.

**Enduring Resources, LLC  
Rainbow 11-24-12-20  
SWNW Sec 20 T11S-R24E  
Uintah County, Utah  
Lease #: Fee**

**MULTI-POINT SURFACE USE & OPERATIONS PLAN**

**1. Existing Roads:**

**Directions to the Rainbow 11-24-12-20 Well Pad**

FROM THE INTERSECTION OF U.S. HIGHWAY 40 AND 500 EAST STREET IN VERNAL, UTAH PROCEED IN AN EASTERLY THEN SOUTHERLY DIRECTION ALONG U.S. HIGHWAY 40 APPROXIMATELY 3.3 MILES TO THE JUNCTION OF STATE HIGHWAY 45; EXIT RIGHT AND PROCEED IN A SOUTHERLY DIRECTION ALONG STATE HIGHWAY 45 APPROXIMATELY 40.5 MILES TO THE JUNCTION OF THE DRAGON ROAD (COUNTY B ROAD 4180). THIS ROAD IS LOCATED APPROXIMATELY 4.8 MILES SOUTH OF BONANZA, UTAH. EXIT LEFT AND PROCEED IN A SOUTHEASTERLY DIRECTION ALONG COUNTY B ROAD 4180 APPROXIMATELY 4.0 MILES TO THE JUNCTION OF THE KINGS WELLS ROAD (COUNTY B ROAD 4190). EXIT RIGHT AND PROCEED IN A SOUTHWESTERLY DIRECTION ALONG COUNTY B ROAD 4190 APPROXIMATELY 8.7 MILES TO THE JUNCTION OF THE ATCHEE RIDGE ROAD (COUNTY B ROAD 4270). CONTINUE ALONG COUNTY B ROAD 4190 IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 4.3 MILES TO THE JUNCTION OF THE LONG DRAW ROAD (COUNTY B ROAD 4260). CONTINUE ALONG COUNTY B ROAD 4190 IN A SOUTHERLY, THEN WESTERLY DIRECTION APPROXIMATELY 2.3 MILES TO THE JUNCTION OF A COUNTY D ROAD. EXIT RIGHT AND PROCEED IN A NORTHERLY DIRECTION ALONG THE COUNTY D ROAD APPROXIMATELY 3.7 MILES TO THE PROPOSED ACCESS ROAD. FOLLOW ROAD FLAGS IN A WESTERLY DIRECTION APPROXIMATELY 595 FEET TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 66.9 MILES IN A SOUTHEASTERLY DIRECTION.

**2. Planned Access Roads:**

The proposed access road will be approximately 1,075 feet of new construction (ON-LEASE). An additional 60 feet of new access road construction or surface disturbance (OFF-LEASE) will be needed on BLM lands. A road right-of-way is being filed at the BLM for the 60 feet of OFF-LEASE new road. The balance of access will be by using existing BLM and Fee roads. Please refer to Topo Map "B" for the takeoff point for the new ON-LEASE road construction.

The proposed access road will be utilized to transport personnel, equipment and supplies to and from the proposed well site during drilling, completion and production operations. The road will be utilized year round.

The access road will be crowned 2% to 3%, ditched and constructed with a running surface of 18 feet and a maximum disturbed width of 30 feet right-of-way. Maximum grade of road is 5% or less. Graveling or capping the roadbed will be performed as necessary to provide a well constructed, safe road. No fence crossings, culverts, turnouts, cattle guards or major cuts and fills are required. Prior to construction or upgrading, the proposed road shall be cleared of any snow and allowed to dry completely.

Surface disturbance and vehicular traffic will be limited to the proposed location and proposed access route. Any additional area needed will be approved in advance. All construction shall be in conformance with the standards outlined in the BLM and Forest Service publication: Surface Operating Standards for Oil and Gas Exploration and Development. 1989.

The road surface and shoulders will be kept in a safe usable condition and will be maintained in accordance with the original construction standards. All drainage ditches will be kept clear and free flowing and will be maintained according to original construction standards. The access road surface will be kept free of trash during operations. All traffic will be confined to the approved disturbed surface. Road drainage crossings shall be designed so they will not cause siltation or accumulation of debris in the drainage crossing nor shall the drainages be blocked by the road bed. Erosion of drainage ditches by runoff water shall be prevented by diverting water off at frequent intervals by means of cutouts. Upgrading shall not be allowed during muddy conditions. Should mud holes develop, they shall be filled in and detours around them avoided. When snow is removed from the road during the winter months, the snow shall be pushed outside of the borrow ditches and the turnouts kept clear so that snowmelt will be channeled away from the road.

3. **Location of Existing Wells within a One-Mile radius (See "Topo" Map "C" attached):**

The following wells are wells located within a one (1) mile radius of the proposed location.

- |    |       |                              |
|----|-------|------------------------------|
| a. | None: | Water Wells:                 |
| b. | None: | Injection Wells:             |
| c. | None: | Producing Wells:             |
| d. | None: | Drilling Wells:              |
| e. | None: | Shut-in Wells:               |
| f. | None: | Temporarily Abandoned Wells: |
| g. | None: | Disposal Wells:              |
| h. | None: | Abandoned Wells:             |
|    |       | i. Rainbow Unit #6           |
| i. | None: | Dry Holes:                   |

- j. None: Observation Wells:
- k. Three: Pending (staked) Wells:
  - i. Rainbow 11-24-14-20
  - ii. Rainbow 11-24-23-20
  - iii. Rainbow 11-24-13-20
  - iv. Rainbow 11-24-32-20
  - v. Rainbow 11-24-22-20
  - vi. Rainbow 11-24-42-20
  - vii. Rainbow 11-24-41-20
  - viii. Rainbow 11-24-31-20
  - ix. Rainbow 11-24-21-20
  - x. Rainbow 11-24-11-20
  - xi. Rainbow 11-24-44-17
  - xii. Rainbow 14-17
  - xiii. Rainbow 11-24-14-17
  - xiv. Rainbow 11-24-13-17
  - xv. Rainbow 11-24-23-17
  - xvi. Rainbow 11-24-33-17

#### 4. Location of Existing and/or Proposed Facilities:

All production facilities will be located on the disturbed portion of the well pad and at a minimum of 25 feet from the toe of the back slope or the top of the fill slope.

A dike will be constructed completely around those production facilities which contain fluids (i.e. production tanks, produced water tanks and/or heater treater). These dikes will be constructed of compacted subsoil, be impervious, hold 100% of the capacity of the largest tank and be independent of the back cut.

All permanent (on site for six months or longer) above the ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth tone color to match one of the standard environmental colors, as determined by the rocky Mountain Five State Inter-Agency Committee

All facilities will be painted within 6 months of installation. The color shall be Carlsbad Canyon (2.5Y 6/2). Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded.

Any necessary pits will be properly fenced to protect livestock and prevent wildlife entry.

Gas Gathering Pipeline:	ON-LEASE	530'	American Gilsonite
	OFF-LEASE	60'	BLM (r-o-w pending)

If the well is capable of economic production, a surface gas gathering line and related equipment shall be installed. The surface gas gathering line shall be in use year round. A total of approximately 590 feet of surface gas gathering pipeline shall be laid on the surface to minimize surface disturbance:

- a. ON-LEASE approximately 530 feet, and
- b. OFF-LEASE approximately 60 feet of 6 inch or less diameter steel, unpainted, welded gas gathering line is proposed.

The proposed pipeline will begin at the well site; continue along the lease road east to the existing pipeline located just east of the east edge of the SWNW of Section 20, T11S-R24E. The proposed gathering line will be placed above ground adjacent to the proposed and existing access route. The line will be welded together and pulled from the well site location and tie-in point when practical; however, it may be necessary to utilize the access road for welding of the line. The line will then be boomed off to the side of the road. The gas meter run will be located within 500 feet of the wellhead. The meter run will be housed. The gas gathering line will be buried or anchored down from the wellhead to the meter.

Upon plugging and abandonment, the gas gathering line will be removed and the disturbed area will be re-contoured and restored as near as practical to the original condition. If necessary, re-seeding operations will be performed after completion of other reclamation operations.

**5. Location and Type of Water Supply:**

Water will be obtained from the White River by Tu and Frum, Inc. Water User Claim #49-2185, Application #T75517, or by Target Trucking Water User Claim #43-2195, or by Dalbo Inc. Water User Claim #43-8496

Water will be hauled to the location over the roads marked on "Topo" Maps "A" and "B."

No water well is to be drilled on this lease.

**6 Source of Construction Materials:**

Surface and subsoil materials in the immediate area will be utilized for location and access road construction.

Any gravel will be obtained from a commercial source; however, gravel sized rock debris associated with location and access road construction may be used as access road surfacing material.

**7. Methods of Handling Waste Materials:**

Drill cuttings will be contained and buried in the reserve pit.

Drilling fluids, including salts and chemicals, will be contained in the reserve pit will be removed and disposed of at an approved waste disposal facility within 120 days after drilling is terminated.

The reserve pit will be constructed on the location and will not be located within natural drainage, where a flood hazard exists or surface runoff will destroy or damage the pit

walls. The reserve pit will be constructed so that it will not leak, brake or allow discharge of liquids.

The reserve pit will be lined with ¼ felt and a minimum of 16 mm plastic with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash or scrap that could puncture the will be disposed of in the pit.

A chemical portable toilet will be furnished with the drilling rig. The toilet will be replaced periodically utilizing a licensed contractor to transport by truck the portable chemical toilet so that its contents can be delivered to the Vernal Wastewater Treatment Facility in accordance with state and county regulations.

Garbage, trash and other waste materials will be collected in a portable, self-contained, fully enclosed trash cage during operations. No trash will be burned on location.

All debris and other waste material not contained in the trash cage will be cleaned up and removed from the location immediately after removal of the drilling rig.

Any open pits will be fenced during the operations. The fencing will be maintained until such time as the pits are backfilled.

No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored, transported or disposed of in association with the drilling, completion or testing of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported or disposed of in association with the drilling, completion or testing of this well.

Produced oil will be stored in an oil tank and then hauled by truck to a crude purchaser facility. Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to an approved disposal site.

#### **8. Ancillary Facilities:**

During drilling operations, approximately 20 days, the site will be a manned camp. Three or four additional trailers will be on location to serve as the crews' housing and eating facilities. These will be located on the perimeter of the pad site within the topsoil stockpiles. Refer to Sheet 4.

#### **9. Well Site Layout: (Refer to Sheets #2, #3, and #4)**

The attached Location Layout Diagrams described drill pad cross-sections, cuts and fills and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s) and surface material stockpiles(s).

Please see the attached diagram for rig orientation and access roads.

The top soil will be windrowed rather than piled. It will be reseeded and track walker at the time the location is constructed. Seeding will be with the determined during the onsite. (Refer to "Seed Mixture for Windrowed Top Soil Will included:" following herein.

The top soil removed from the pit area will be store separately and will not be reseeded until the pit is reclaimed.

All pits shall be fence to the following minimum standards:

- a. 39 inch net wire shall be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.
- b. The net wire shall be no more than 2 inches above the ground. The barbed wire shall be 3 inches over the new wire. Total height of the fence shall be at least 42 inches.
- c. Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.
- d. Standard steel, wood or pipe posts shall be used between the corner braces. Maximum distance between any two fence posts shall be no greater than 16 feet.
- e. All wire shall be stretched by, using a stretching device, before it is attached to corner posts.
- f. The reserve pit fencing will be on three sides during drilling operations and on the fourth side when the rig moves off location. Pits will be fenced and maintained until cleanup.
- g. Location size may change prior to drilling the well due to the current rig availability. If the proposed location is not large enough to accommodate the drilling, the location will be re-surveyed and a Form 9 will be submitted.

#### **10. Plans for Surface Reclamation:**

##### **Producing Location:**

- a. Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, equipment, materials, trash and debris not required for production.
- b. Immediately upon well completion, any hydrocarbons in the pit shall be removed in accordance with 40CFR 3162.7.
- c. Before any dirt work associated with location restoration takes place, the reserve pit shall be as dry as possible. All debris in it will be removed. Other waste and spoil materials will be disposed of immediately upon completion of operations.
- d. The reserve pit and that portion of the location not needed for production facilities/operations will be re-contoured to the approximated natural contours. The reserve pit will be reclaimed within 90 days from the date of well completion, weather permitting.
- e. To prevent surface water(s) from standing (ponding) on the reclaimed reserve pit area, final reclamation of the reserve pit will consist of "mounding" the surface 3 feet above surrounding round surface to allow the reclaimed pit area to drain effectively.

- f. Upon completion of back filling, leveling and re-contouring, the stockpiled topsoil will be spread evenly over the reclaimed area(s).

**Dry Hole/Abandoned Location:**

- i. Abandoned well sites, roads and other disturbed areas will be restored as nearly as practical to their original condition. Where applicable, these conditions include the re-establishment of irrigation systems, the re-establishment of appropriate soil conditions and re-establishment of vegetation as specified.
- ii. All disturbed surfaces will be re-contoured to the approximated natural contours with reclamation of the well pad and access road to be performed as soon as practical after final abandonment. If necessary, re-seeding operations will be performed after completion of other reclamation operations.

**Seed Mixture for Windrowed Top Soil Will Included:**

To be provided by DOG&M and/or American Gilsonite and the BLM.

**11. Surface Ownership: Location, Access and Pipeline Route:**

Wellsite: American Gilsonite

Access: Bureau of Land management and American Gilsonite

Pipeline: Bureau of Land management, and  
American Gilsonite

**12. Other Information**

**On-site Inspection for Location, Access and Pipeline Route:**

Pending.

**Special Conditions of Approval:**

None.

**Archeology:**

- a. A Cultural Resource Inventory Report is pending and to be prepared by Montgomery Archaeological Consultants.



**Paleontology:**

- a. A Paleontology Reconnaissance Report is pending and to be prepared by Intermountain Paleo-Consulting.

If, during operations, any archaeological or historical sites, or any objects of antiquity (subject to the Antiquities Act of June 8, 1906) are discovered, all operations which would affect such sites will be suspended and the discovery reported promptly to the surface management agency.

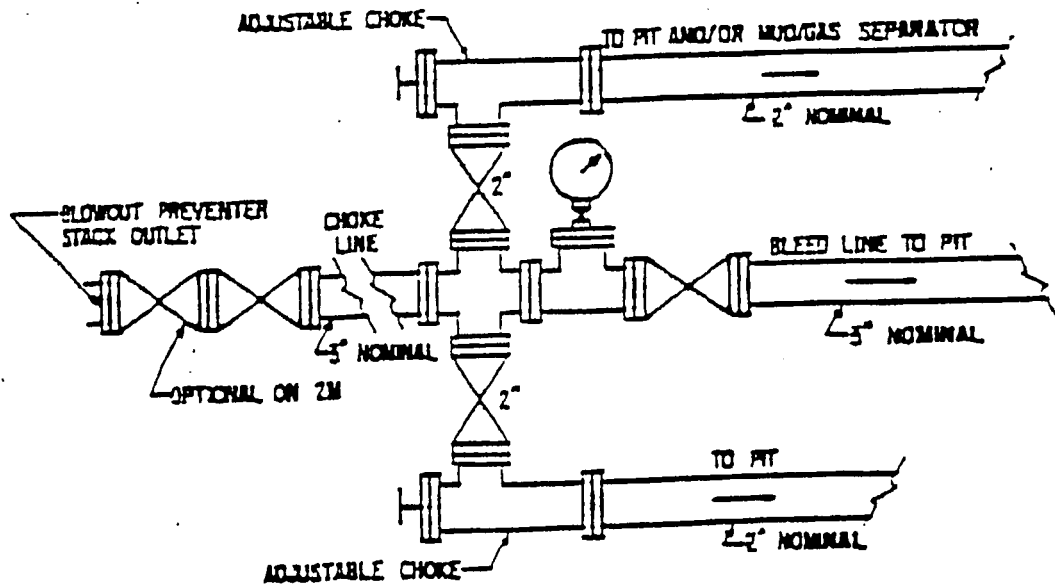
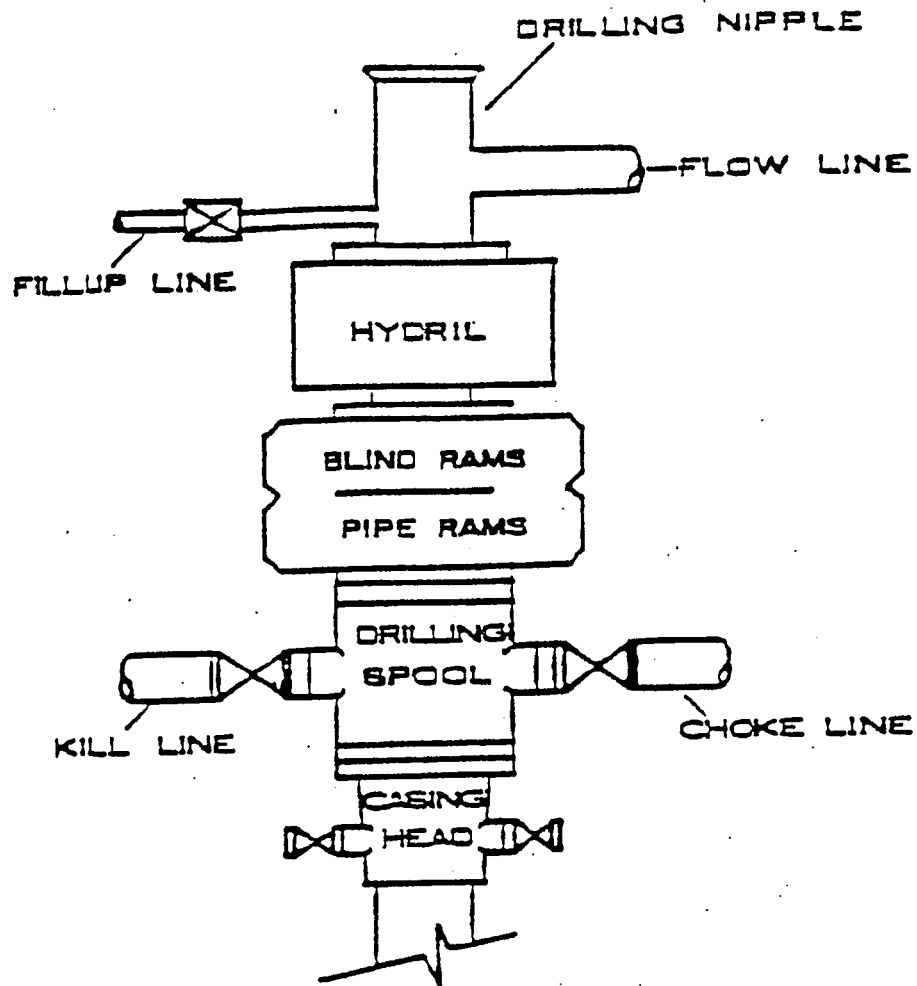
**13, Lessee's or Operator's Representatives:****Representatives:**

Alvin R. (Al) Arlian  
Landman – Regulatory Specialist  
Enduring Resources, LLC  
475 17<sup>th</sup> Street, Suite 1500  
Denver, Colorado 80202  
Office Tel: 303-350-5114  
Fax Tel: 303-573-0461  
[aarlian@enduringresources.com](mailto:aarlian@enduringresources.com)

Frank Hutto  
Vice President – Operations  
Enduring Resources, LLC  
475 17<sup>th</sup> Street, Suite 1500  
Denver, Colorado 80202  
Office Tel: 303-573-5102  
Fax Tel: 303-573-0461  
[fhutto@enduringresources.com](mailto:fhutto@enduringresources.com)

3,000 PSI

## EOP STACK



50628

RIGHT-OF-WAY and DAMAGE AGREEMENT

THIS AGREEMENT is made and entered into by and between, AMERICAN GILSONITE COMPANY, (hereinafter referred to as "Grantor") and ENDURING RESOURCES, LLC (hereinafter referred to as "Grantee") effective May 31, 2006

WHEREAS, Grantee desires to enter onto and cross such Lands for the purpose of drilling two exploratory oil and/or gas wells, Rainbow 11-24-11-20 & 11-24-12-20 ("Wells"), located in the SWNE and NENW of Section 20, Township 11 South, Range 24 East, Uintah County, Utah (hereinafter referred to as the "Drillsite"). In addition, there will be fourteen additional wells requiring access across the roads originating from the Wells, which Grantor will receive compensation pursuant hereto for. 1377 ROW

NOW THEREFORE, for and in consideration of the mutual promises and covenants herein contained, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

- I. Grantee shall pay Grantor the sum of \$3,000.00 up front payment for damages to surface of the Lands for road access to the Drillsite and for the Drillsite for the drilling of each Well. Within sixty days of completion of each Well either as a producer or a plugged and abandoned well, Grantee shall survey the new access road and the Drillsite to compensate Grantor for any additional damage that may have occurred during drilling and completion operations. Compensation will be on a \$3,000.00 per acre cost for any damages exceeding 4.0 acres and such compensation, if due, will be paid within thirty (30) days of the surveyor's report being released. Grantee shall utilize existing access routes to the maximum extent feasible, so as to minimize surface disturbances for access to facilities.
- II. Grantee and their assigns or agents shall have the right to use a reasonable amount of access road across the Lands and shall have the right to move derricks, drilling tools, vehicles, and all other machinery and equipment necessary or incident to the re-drilling, drilling, testing completion, operation of the wells. Such activity shall be restricted to existing public roads or access roads covered by this agreement. Any roads or surface facilities may be relocated at Grantor's expense if needed due to gilsonite mining or processing in the future.
- III. This Agreement and the rights granted herein are effective and shall continue in full force and effect so long as operations are conducted on the Well. Upon execution of this Agreement, all payments due hereunder shall be paid concurrently. Operations are defined under terms of the oil and gas lease with Grantor, and under the Rules and Regulations defined by the State of Utah.
- IV. Cattle guards and gates will be constructed, if requested by Grantor, at all places where the openings go through the existing fences and gates will be kept closed at all times except when opened for passage of traffic. Also, gates shall be installed to limit access to producing wells on roads constructed by Grantee if by mutual agreement between Grantee and Grantor.
- V. If there is any fill used for roads constructed across any drainage, then culverts will be used for the free flow of water through said drainage.

Rainbow 11-24-12-20

- VI. If the access road departs from existing established roadways and new construction is required, topsoil will be segregated and stockpiled for replacement during reclamation activities.
- VII. It is understood that any road constructed across the said Lands shall not exceed 30 feet in total width, including the total disturbed area between the outside of each berm, without the prior approval of Grantor.
- VIII. Upon completion of any drilled pursuant hereto Well as a dry hole and the subsequent abandonment thereof, and at the request of the Grantor, and drill pads and newly constructed road will be restored and seeded within 180 days to the condition it was in prior to commencement of operations insofar as reasonably possible. Any preexisting roads, and the improvements thereto, which are constructed by Grantee, shall be left in a good and useable condition for the continued use by Grantor. Reclaimed areas will be reseeded with a wildlife mixture approved by the Utah Division of Wildlife.
- IX. In the event that either of the Wells is completed as a producer of oil and/or gas, Grantee shall build and maintain a permanent access road in conformance with the already established county road including any variances granted by the county by existing roads to the Drillsite. Disturbed areas not used for production will be re-graded and seeded with an approved wildlife seed mix within 90 days unless prohibited by weather.
- X. Upon completion of the Well(s) as a well capable of oil and/or gas production, this Agreement shall continue in full force and effect and Grantee shall pay in advance to Grantor an annual access rental of \$3,000, \$2,000 per pad and \$1,000 per acre of roadway 30-foot width, or a minimum of \$3,000 to include the pad and roadway for each well, whichever is greater, on or before January 31<sup>st</sup> of each year thereafter until the subject well is plugged and abandoned and operations cease thereon.
- XI. It is expressly understood that the settlement amounts in paragraph I are only for construction of a road and drilling location and it is not a settlement for any damages to contiguous property, personal property of the Grantor or a release of any personal injuries that may be sustained by reason of the operations carried on by Grantee or its agents.
- XII. This Agreement does not cover pipeline easements and Grantee acknowledges that it must secure a separate agreement prior to laying pipeline related to production of gas or oil on Grantor's lands.
- XIII. This Agreement shall not be assigned, nor the rights of Grantee hereunder transferred in any manner without the prior written consent of Grantor, which consent shall not be unreasonably withheld.
- XIV. Grantee shall comply at its own expense with the Workman's Compensation Law of the State of Utah and shall maintain such insurance throughout the duration of this Agreement, and shall furnish Grantor prior to beginning work on the Lands evidence of such insurance and at each policy period thereafter renewal evidence that such insurance is being maintained. Grantee, with respect to its operation in

connection with this Agreement, shall also purchase or provide for (1) comprehensive general public liability insurance with a combined single limit not less than One Million Dollars (\$1,000,000) for bodily injury and property damage; and (ii) automobile insurance with a combined single limit of not less than One Million Dollars (\$1,000,000) for bodily injury or property damage. At Grantor's request, Grantee shall furnish Grantor with a certificate or certificates of insurance secured and maintained hereunder and Grantor shall be an additional insured thereon.

- XV. In the event any person or entity (including Grantor) suffers a loss of any kind or character, or death or injury, (1) as a result of a breach of this Agreement by Grantee, or its agents, contractors, or employees, or (2) as a result of Grantee or its agents, contractors or employees performing on the Drillsite or elsewhere, any action, directly or indirectly, in furtherance of a right hereunder, or (3) from any cause whatsoever while being on the Lands and the Drillsite to conduct any work or service for Grantee shall reimburse, indemnify, defend and hold harmless Grantor for any and all losses, costs, claims, liability, litigation, demands, damages and expenses (including all attorney fees) of every kind or character which Grantor may suffer or be subject to as a result of said loss or injury whether or not such losses, costs, claims, liabilities, litigation, demands, damages, and expenses (including all attorney fees) result from the condition of Grantor's premises or facilities, unless through the sole negligence of Grantor or its agents.
- XVI. Grantee shall provide Grantor with not less than forty-eight (48) hours advance notice, either by phone or in person, of Grantee's intent to enter upon the Land for the purpose of commencing operations thereon. Grantee shall conduct its operations in such a manner as to use no more Land than is reasonably necessary and shall use all reasonable efforts not to interfere with the use of the Land by any grazing permittees. All drilling fluid pits shall be fenced within ten days of end of drilling each Well as a producer or dry hole and then the pits will be reclaimed and reseeded within 180 days of the completion of the well as a producer or a dry hole. Surface structures shall be fenced, if they represent a potential hazard to livestock, by mutual agreement between Grantor and Grantee. The type of fencing to be mutually agreed upon by Grantor and Grantee. Grantee will have ten days to effect repairs or problems with fences when notified by e-mail or in writing by Grantor. Grantor can request an extension of the closure of pits beyond the 180 days from the completion of each Well if closing the pits represents a potential hazard or closing the pits at that time will not comply with the State of Utah's reclamation requirements. An extension will not be unreasonably withheld.
- XVII. Grantee shall have the right at any time, and from time to time, to remove any or all property, fixtures, equipment and materials, placed by Grantee on the Land, including the right to draw and remove casing. Within 90 days after plugging of a Well this agreement will expire and Grantee shall remove all remaining property, fixtures, equipment and materials that were placed by Grantee on the Land. Such removal shall be accomplished at Grantee's sole cost, risk and expense. If such items are not removed within 90 days, Grantor shall have the right to remove those items from the Land and bill the associated cost for such removal to Grantee.

- XVIII. This agreement restricts the Grantee's use of Grantor's lands to the sole purpose of exploration and production of oil and/or gas at this specific site. It does not grant Grantee, its contractors, or its agents the right to use the Grantor's property for any other purpose.
- XIX. All operations of Grantee hereunder which involve drilling for and producing of oil and gas, or both, or the cessation, or abandonment, of its operations shall be conducted in a good and workmanlike manner and in accordance with standard oil field practices and in accordance with all applicable federal, state and local statutes and regulations including specifically, but not by way of limitation, such laws and regulations governing the operation, maintenance and reclamation of well sites, pipelines, tank batteries, and other related facilities as may be utilized by Grantee and its operations hereunder. Grantee shall further adhere to and abide by all federal, state and local environment statutes and regulations addressing air, water, and solid waste pollution and the handling storage, storage use and disposal of hazardous substances as prescribed in the Comprehensive Environmental Response, Compensation and Liability Act of 1986, 42 U.S.C. & 9601, et seq. (CERCLA). Grantee shall provide Grantor with copies of all applications for environmental laws, governmental requests for any information pertaining to environmental issues relating to the Land or products produced therefrom or Grantee's use thereof, copies of any responses from Grantee's to said requests, and any environmental investigations, reports, or studies involving the Land or products produced therefrom or the use thereof by Grantee which from time to time, may be obtained from Grantee.
- XX. Grantee also agrees to abide by the laws or regulations of the State of Utah designed to protect gilsonite deposits, including but not limited to those specific rules set forth in the General Rules and Regulations of the Utah Board of Oil, Gas and Mining, as amended, pertaining to such matters.
- XXI. The provisions hereof shall be considered as covenants running with the Land during the life of the Agreement and all modifications thereof, and any assignment of the Agreement shall be subject to the provisions thereof.
- XXII. This Agreement shall not be terminated in whole or in part, nor Grantee held liable for damages, because of a temporary cessation of production of drilling operations due to breakdown of equipment or due to the repairing of a well or wells or because of failure to comply with any of the express provisions or implied covenants of this Agreement if such failure is the result of the exercise of governmental authority, war, armed hostilities, act of God, strike, civil disturbance, fire, explosion, flood or any other cause, including lack of market, beyond the control of Grantee.
- XXIII. Any controversy or claim, whether based in contract, tort or otherwise arising in any way out of, relating to on in connection with this Agreement (a "Dispute") shall be finally settled by arbitration conducted expeditiously in accordance with the Commercial Arbitration Rules (the "Rules") of the American Arbitration Association (the "AAA"). In the event of a conflict between this Article and the Rules, this Article shall govern. The attorney/client and work product privileges will be honored in the arbitration as though the case were being determined in a

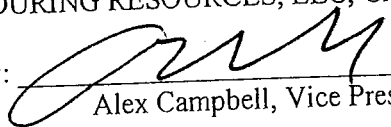
Utah state court. The arbitration shall be conducted before one independent and impartial arbitrator selected by the AAA pursuant to the Rules. The arbitration shall be governed by the United States Arbitration Act, 9 U.S.C. 1-16, to the exclusion of any provision of Utah law inconsistent therewith and which would produce a different result, and judgment upon the award rendered by the arbitrator may be entered by any court having jurisdiction thereof. The place of arbitration shall be Salt Lake City, Utah, and the cost of the arbitration proceeding shall be borne equally by the parties to this agreement and each party shall bear its own attorney's fees, and other expenses, provided that the arbitrator may award attorney fees, filing fees, and costs to the prevailing party as the arbitrator deems reasonable and fair. The arbitrators shall determine the claims of the parties and render their final award in accordance with the substantive law of the State of Utah exclusive of its conflict of law rules. The limitations of any actions will be determined under Utah law. The arbitrator shall permit and facilitate such discovery as the arbitrator determines is appropriate in the circumstances, taking into account the needs of the parties and the desirability of making discovery expeditious and cost-effective. The arbitrator shall actively manage the proceedings as the arbitrator deems best so as to make the proceedings fair, expeditious, economical, and less burdensome than litigation. The procedures specified in this section shall be the exclusive means of resolution of Disputes between the parties, provided that either party may seek injunctive action before a court of competent jurisdiction to prevent the occurrence of irreparable harm pending resolution of a Dispute pursuant to the provisions of this section.

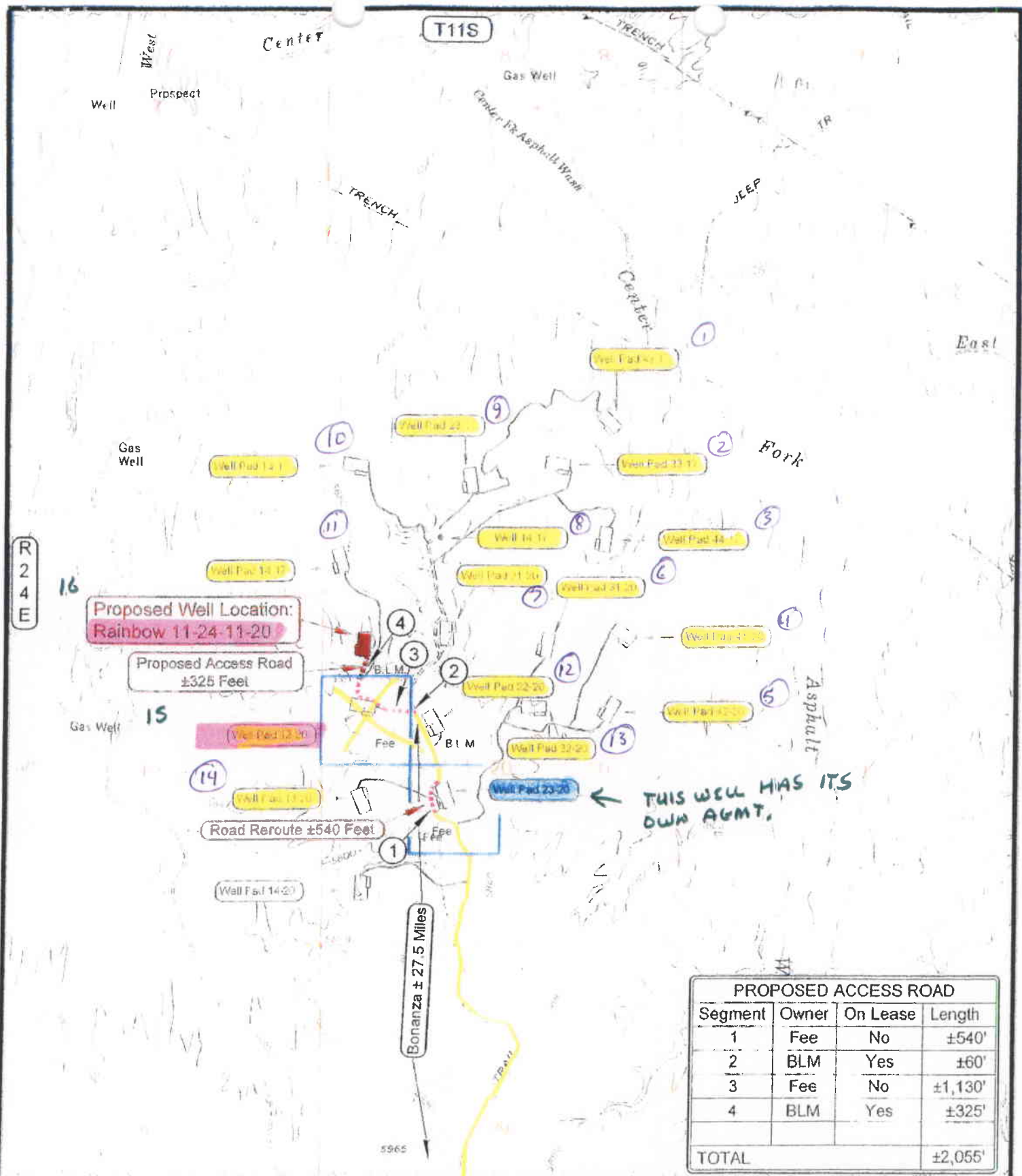
XXIV. This agreement constitutes the entire Agreement between the parties hereto as to the subject matters herein set forth and supersedes all prior written or oral agreements relative thereto. No change, modification, alteration or amendment to this Agreement shall be binding upon the parties hereto except as specifically expressed in writing and signed by each party agreeing to be bound thereby.

AMERICAN GILSONITE COMPANY, Grantor

By:   
Ted Stevens, General Counsel

ENDURING RESOURCES, LLC, Grantee

By:   
Alex Campbell, Vice President



PROPOSED ACCESS ROAD			
Segment	Owner	On Lease	Length
1	Fee	No	±540'
2	BLM	Yes	±60'
3	Fee	No	±1,130'
4	BLM	Yes	±325'
TOTAL			±2,055'

#### LEGEND

- PROPOSED ACCESS ROAD  
 ■■■■■ = SUBJECT WELL  
 ■■■■■ = SHARED ACCESS  
 ——— = EXISTING ROAD  
 ——— = EXISTING ROAD (TO BE IMPROVED)  
 (B-5480) = COUNTY ROAD CLASS & NUMBER
- = LEASE LINE AND / OR  
 PROPERTY LINE

#### ENDURING RESOURCES

**Rainbow 11-24-11-20**  
**SECTION 20, T11S, R24E, S1B&M.**  
**844' FNL & 582' FWL**

**Timberline Land Surveying, Inc.**  
 38 West 100 North Vernal, Utah 84078  
 (435) 789 1365

SHEET  
 8  
 OF 10

TOPOGRAPHIC MAP "B"

SCALE: 1" = 2000'

DRAWN BY: BJL

DATE SURVEYED: 10-14-05

DATE DRAWN: 11-08-05

REVISED:





PHOTO VIEW: FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: NORTHERLY



PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: WESTERLY

## ENDURING RESOURCES

**Rainbow 11-24-12-20**  
**SECTION 20, T11S, R24E, S.L.B.&M.**  
**1795' FNL & 618' FWL**

## LOCATION PHOTOS

TAKEN BY: B.J.S.

DRAWN BY: M.W.W.

DATE TAKEN: 10-11-05

DATE DRAWN: 10-18-05

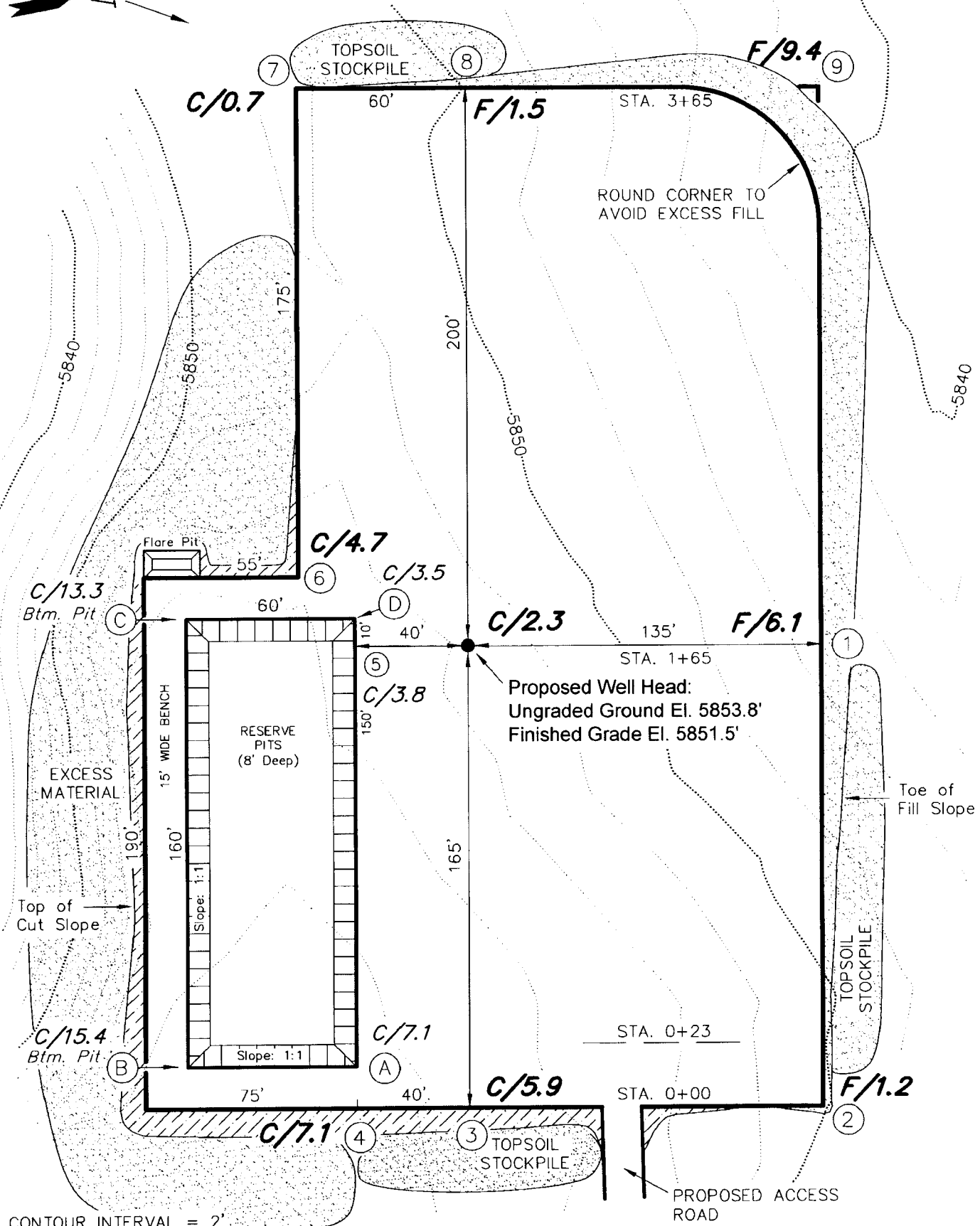
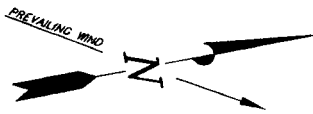
REVISED:

**Timberline Land Surveying, Inc.**  
 38 West 100 North Vernal, Utah 84078  
 (435) 789-1365

**SHEET**  
**1**  
**OF 10**

# NDURING RESOURCI

CUT SHEET - RAINBOW 11-24-12-20

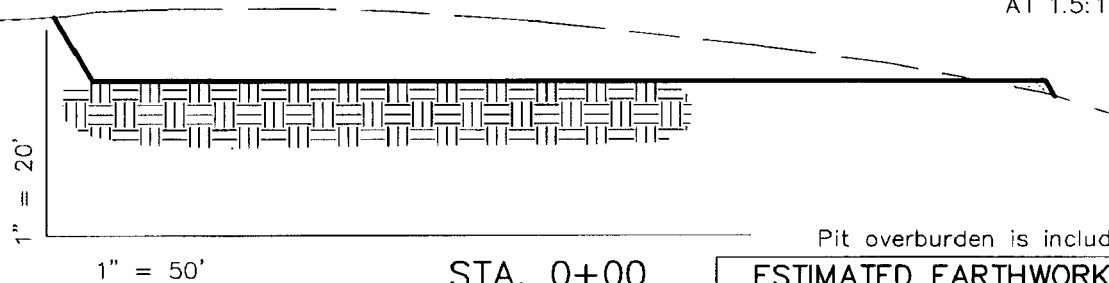
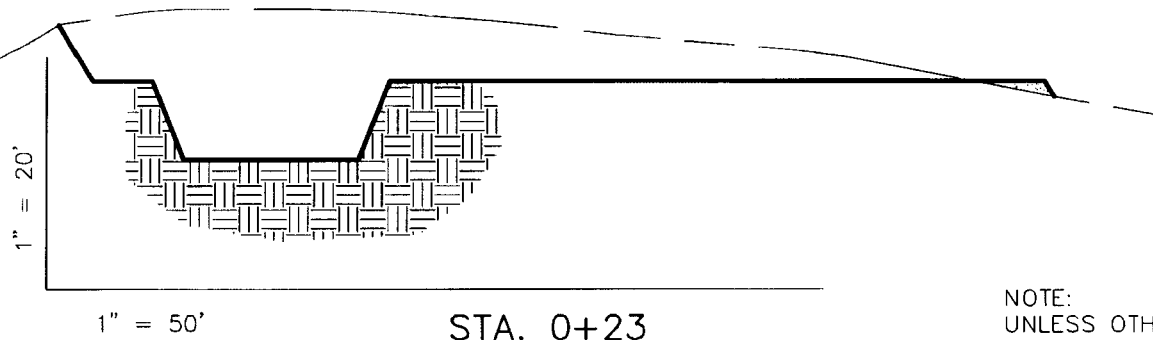
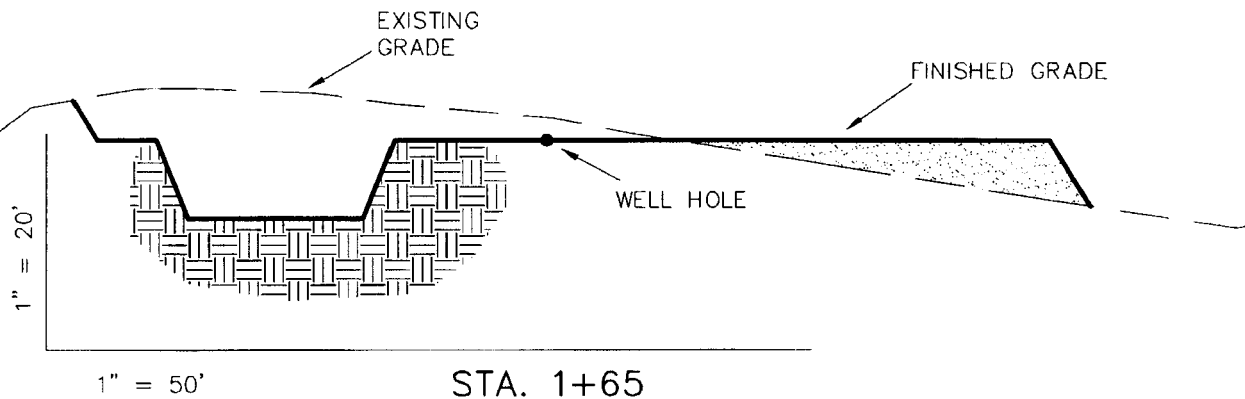
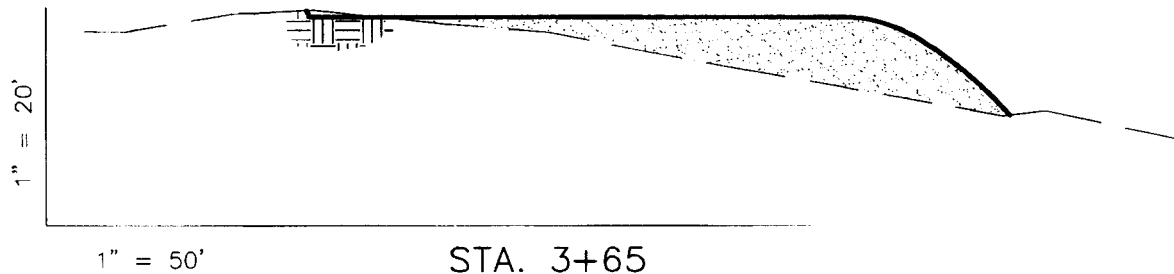


CONTOUR INTERVAL = 2'

Section 20, T11S, R24E, S.L.B.&M.		Qtr/Qtr Location: SW NW		Footage Location: 1795' FNL 618' FWL	
Date Surveyed: 10-11-05	Date Drawn: 10-12-05	Date Last Revision:	<div>Timberline<i> (435) 789-1365</i></div> <div>Land Surveying, Inc.</div> <div>38 WEST 100 NORTH VERNAL, UTAH 84078</div>		SHEET 3 OF 10
Surveyed By: B.J.S.	Drawn By: C.B.T.	Scale: 1" = 50'			

# NDURING RESOURCE 3

## CROSS SECTIONS - RAINBOW 11-24-12-20



NOTE:  
UNLESS OTHERWISE NOTED  
ALL CUT/FILL SLOPES ARE  
AT 1.5:1

Pit overburden is included in pad cut.

### REFERENCE POINTS

250' Northeast	5842.7'
225' Northeast	5838.7'
215' Southeast	5857.8'
265' Southeast	5857.9'

### ESTIMATED EARTHWORK QUANTITIES (No shrink or swell adjustments have been used) (Expressed in Cubic Yards)

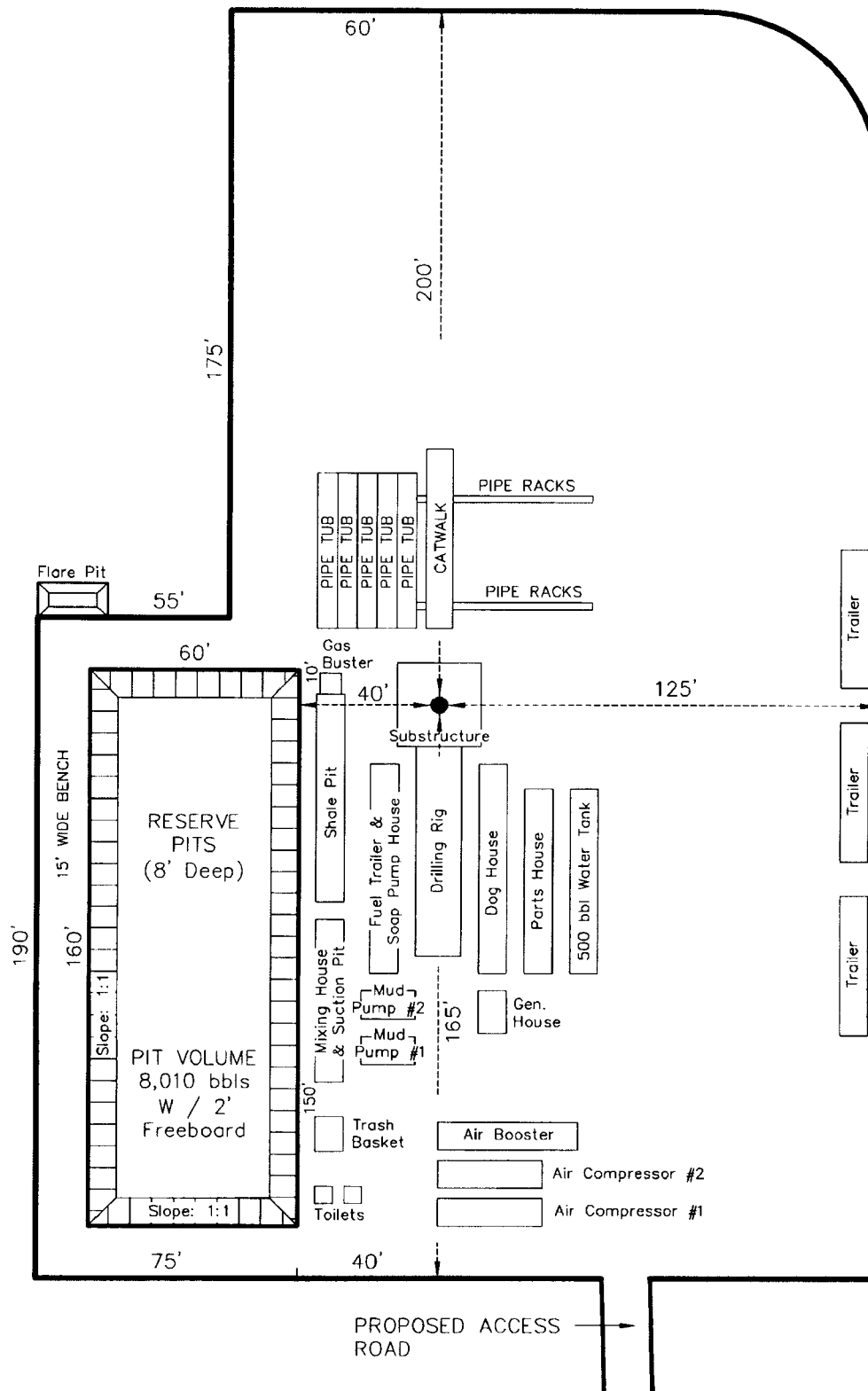
ITEM	CUT	FILL	6" TOPSOIL	EXCESS
PAD	5,320	6,490	Topsoil is not included in Pad Cut	-1,170
PIT	2,340	0		2,340
TOTALS	7,660	6,490	1,440	1,170

Excess Material after Pit Rehabilitation = 0 Cu. Yds.

Section 20, T11S, R24E, S.L.B.&M.		Qtr/Qtr Location: SW NW		Footage Location: 1795' FNL 618' FWL	
Date Surveyed: 10-11-05	Date Drawn: 10-12-05	Date Last Revision:	<div>Timberline<i>(435) 789-1365</i></div> <div>Land Surveying, Inc.</div> <div>38 WEST 100 NORTH VERNAL, UTAH 84078</div>		SHEET 4 OF 10
Surveyed By: B.J.S.	Drawn By: C.B.T.	Scale: 1" = 50'			

# ENDURING RESOURCE

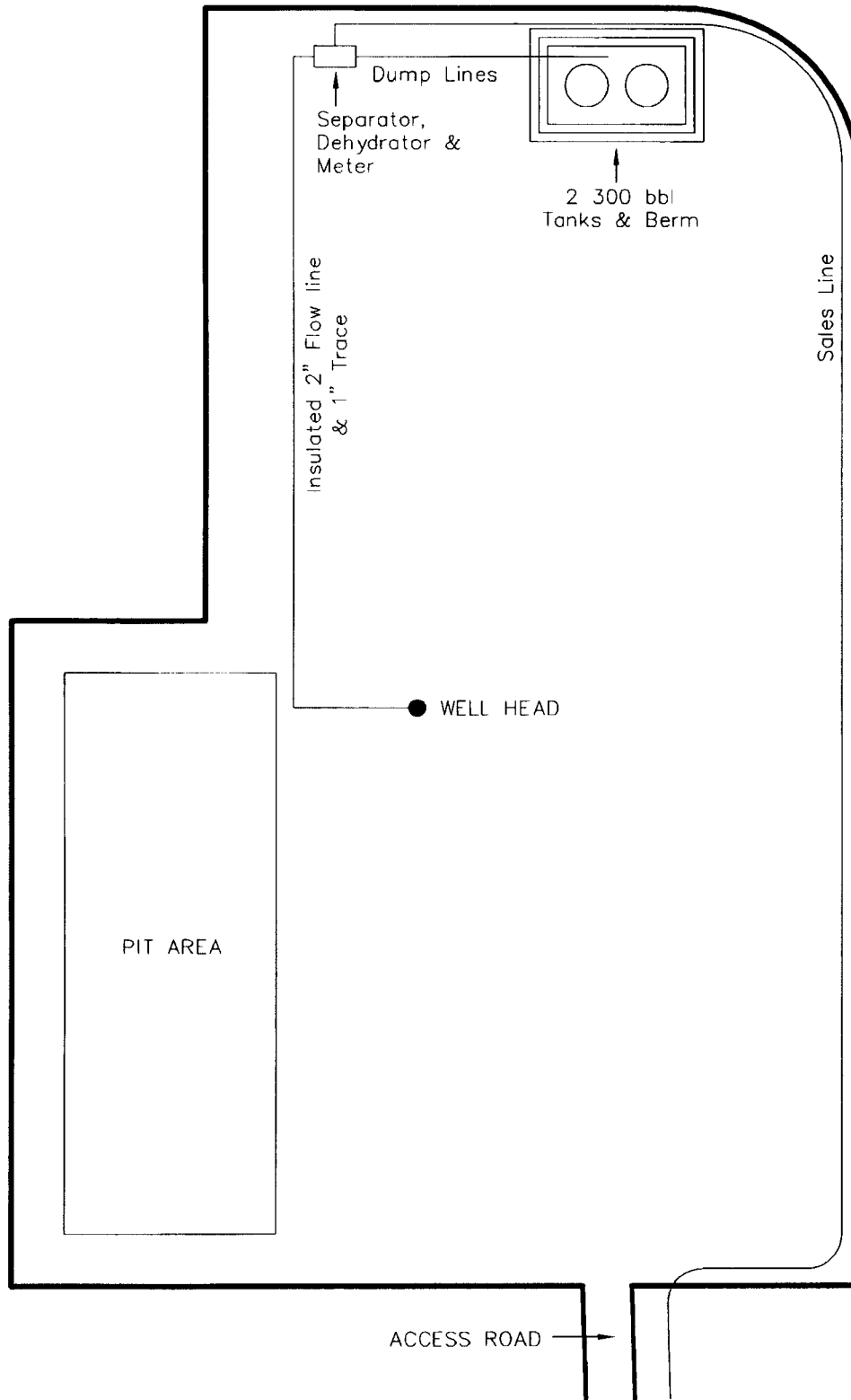
## TYPICAL RIG LAYOUT - RAINBOW 11-24-12-20



Section 20, T11S, R24E, S.L.B.&M.		Qtr/Qtr Location: SW NW	Footage Location: 1795' FNL 618' FWL
Date Surveyed: 10-11-05	Date Drawn: 10-12-05	Date Last Revision:	<b>Timberline</b> (435) 789-1365 <b>Land Surveying, Inc.</b> 38 WEST 100 NORTH VERNAL, UTAH 84078
Surveyed By: B.J.S.	Drawn By: C.B.T.	Scale: 1" = 50'	
			<b>SHEET</b> <b>5</b> <b>OF 10</b>

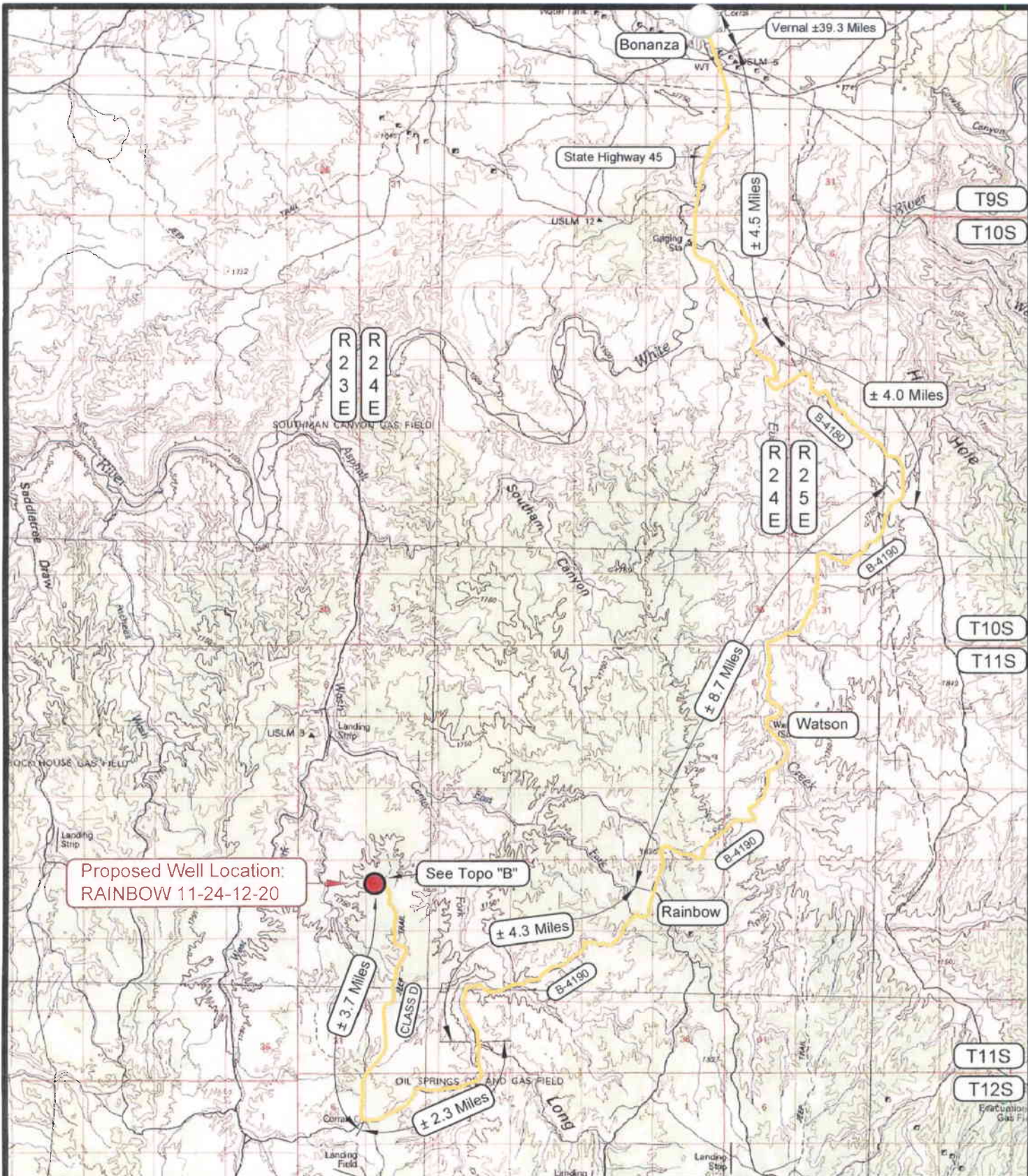
# ENDURING RESOURCES

## TYPICAL PRODUCTION LAYOUT – RAINBOW 11-24-12-20



Section 20, T11S, R24E, S.L.B.&M.		Qtr/Qtr Location: SW NW	Footage Location: 1795' FNL 618' FWL
Date Surveyed: 10-11-05	Date Drawn: 10-12-05	Date Last Revision:	<b>Timberline</b> (435) 789-1365
Surveyed By: B.J.S.	Drawn By: C.B.T.	Scale: 1" = 50'	<b>Land Surveying, Inc.</b> 38 WEST 100 NORTH VERNAL, UTAH 84078
			<b>SHEET 6 OF 10</b>





#### LEGEND

- = PROPOSED WELL LOCATION
- = EXISTING ROAD
- = EXISTING ROAD (TO BE IMPROVED)
- = PROPOSED ACCESS ROAD
- B-5460 = COUNTY ROAD CLASS & NUMBER

#### TOPOGRAPHIC MAP "A"

SCALE: 1:10,000'

DRAWN BY: M.W.W.

DATE SURVEYED: 10-11-05

DATE DRAWN: 10-12-05

REVISED:

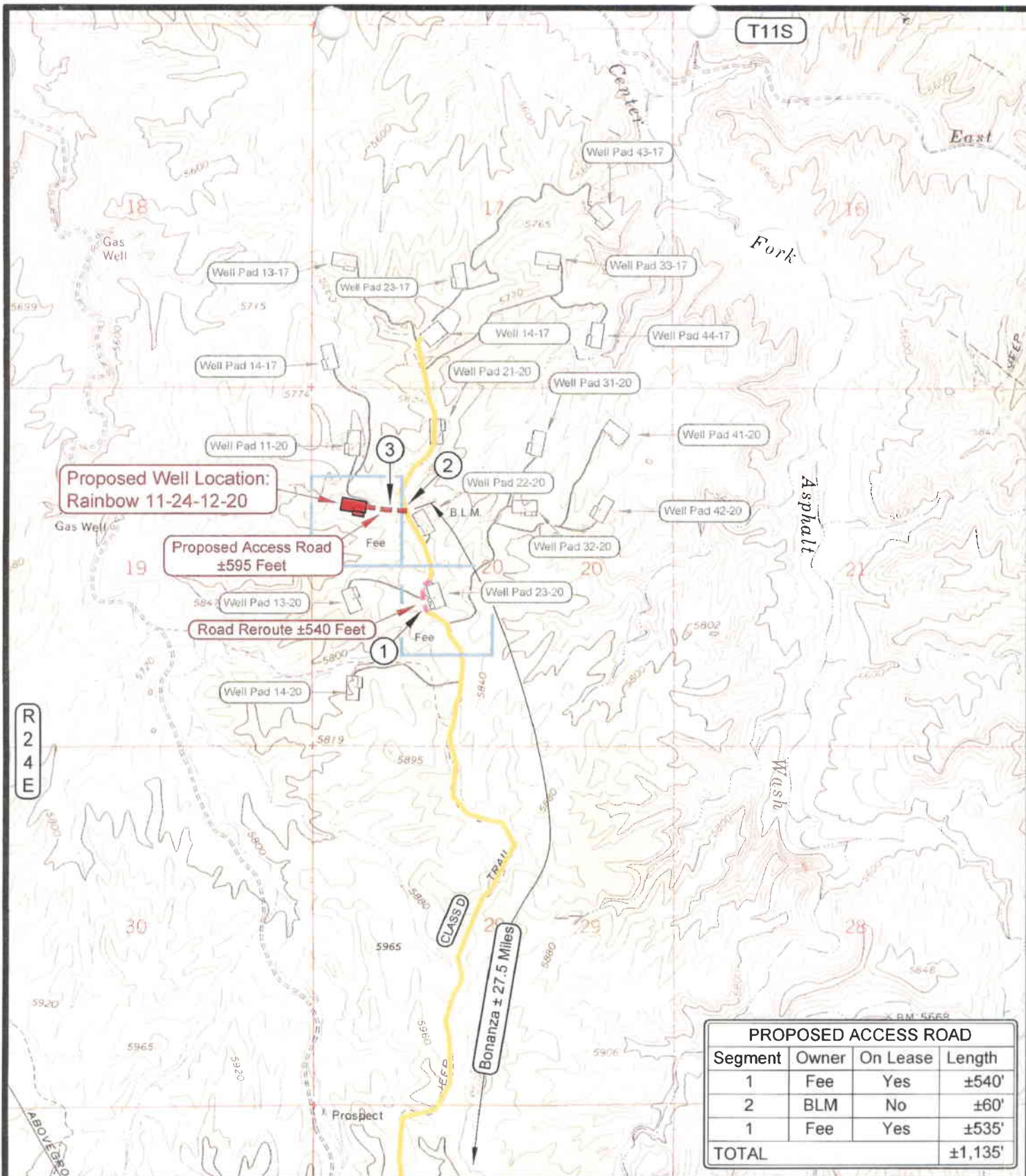
#### ENDURING RESOURCES

**Rainbow 11-24-12-20**  
**SECTION 20, T11S, R24E, S.L.B.&M.**  
**1795' FNL & 618' FWL**

**Timberline Land Surveying, Inc.**  
 38 West 100 North Vernal, Utah 84078  
 (435) 789-1365

**SHEET**  
**7**  
**OF 10**





#### LEGEND

- PROPOSED ACCESS ROAD
- = SUBJECT WELL
- = SHARED ACCESS
- = EXISTING ROAD
- = EXISTING ROAD (TO BE IMPROVED)
- (B-5460) = COUNTY ROAD CLASS & NUMBER
- = LEASE LINE AND / OR PROPERTY LINE

#### TOPOGRAPHIC MAP "B"

SCALE: 1" = 2000'

DRAWN BY: M.W.W.

DATE SURVEYED: 10-11-05

DATE DRAWN: 11-15-05

REVISED:

#### ENDURING RESOURCES

**Rainbow 11-24-12-20**  
**SECTION 20, T11S, R24E, S.L.B.&M.**  
**1795' FNL & 618' FWL**

**Timberline Land Surveying, Inc.**

38 West 100 North Vernal, Utah 84078  
 (435) 789-1365

**SHEET**

**8**

**OF 10**

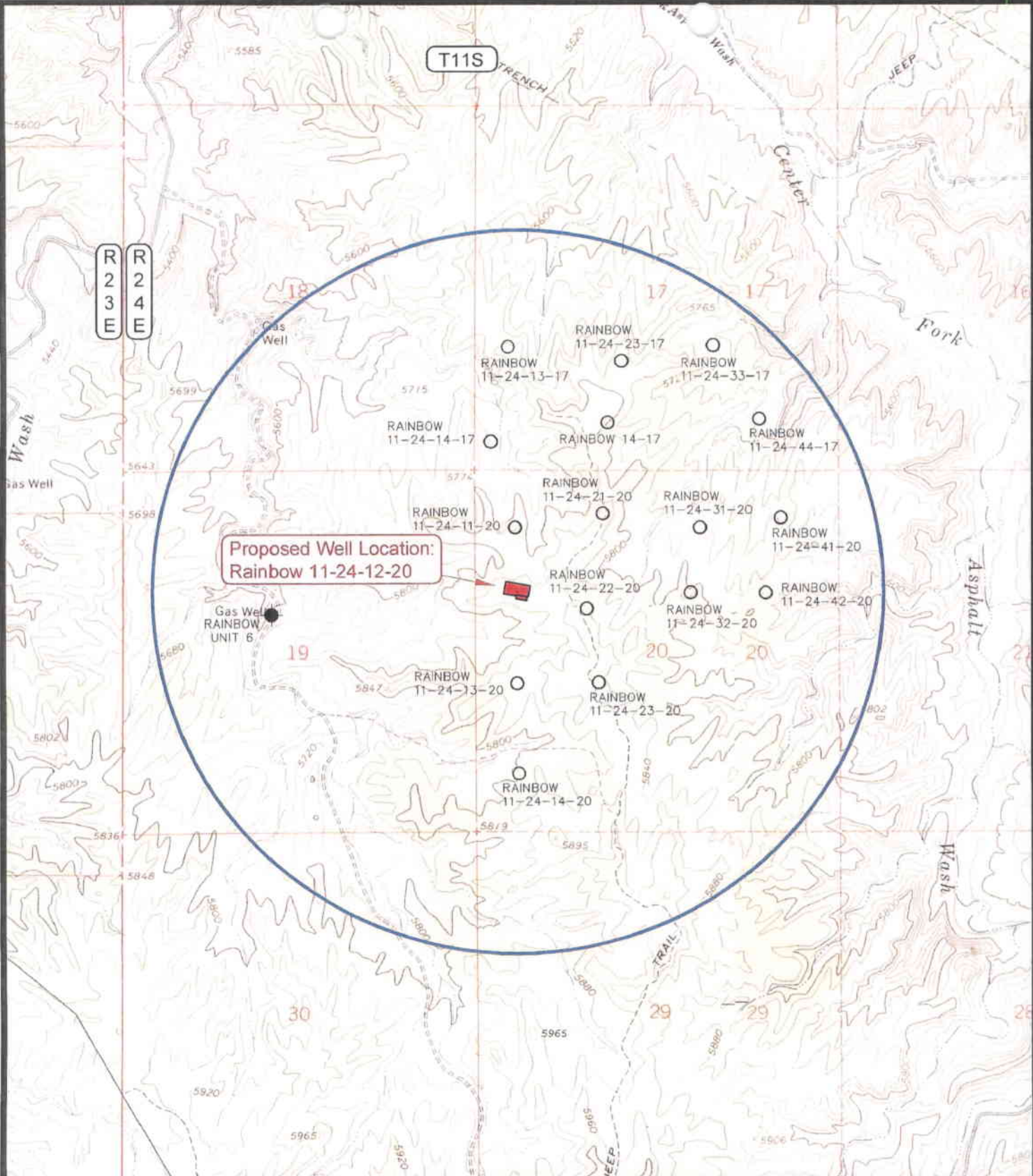


T11S

R  
2  
3  
E

R  
2  
4  
E

Proposed Well Location:  
Rainbow 11-24-12-20



LEGEND

- = DISPOSAL WELL
- = PRODUCING WELL
- = SHUT IN WELL
- = PROPOSED WELL
- = WATER WELL
- = ABANDONED WELL
- = TEMPORARILY ABANDONED WELL

ENDURING RESOURCES

**Rainbow 11-24-12-20**  
**SECTION 20, T11S, R24E, S.L.B.&M.**  
**1795' FNL & 618' FWL**

**Timberline Land Surveying, Inc.**  
38 West 100 North Vernal, Utah 84078  
(435) 789-1365

**SHEET**  
**9**  
**OF 10**

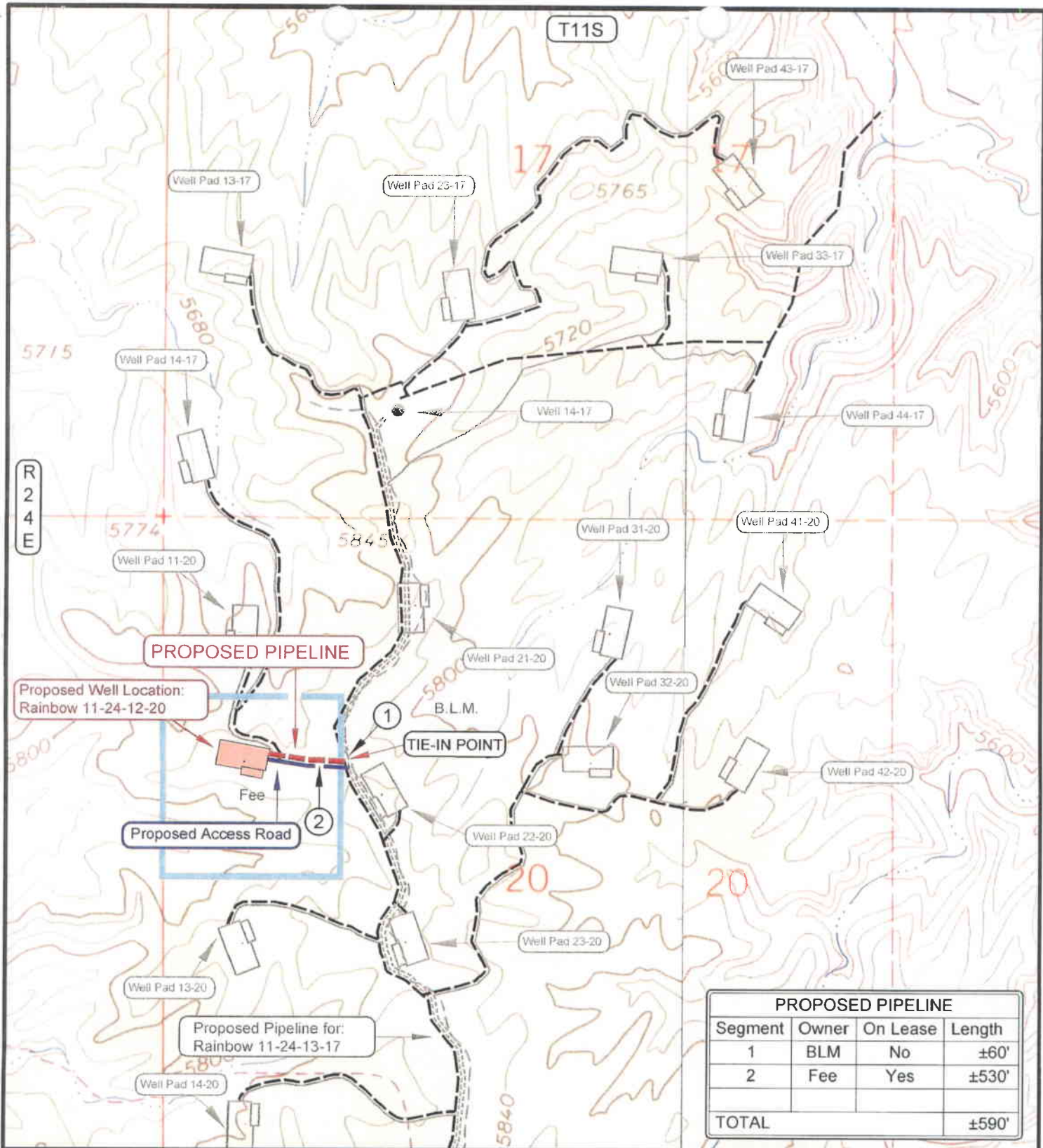
TOPOGRAPHIC MAP "C"

DATE SURVEYED: 10-11-05  
DATE DRAWN: 11-15-05  
REVISED:

SCALE: 1" = 2000'

DRAWN BY: M.W.W.





**APPROXIMATE PIPELINE LENGTH = 590 Feet**

#### LEGEND

- = OTHER PIPELINE
- - - = PROPOSED PIPELINE
- = PROPOSED ACCESS ROAD
- = LEASE LINE AND / OR PROPERTY LINE

#### TOPOGRAPHIC MAP "D"

SCALE: 1" = 1000'

DRAWN BY: BJZ

DATE SURVEYED: 10-14-05

DATE DRAWN: 11-15-05

REVISED:

#### ENDURING RESOURCES

**Rainbow 11-24-12-20**  
**SECTION 20, T11S, R24E, S.L.B.&M.**  
**1795' FSL & 618' FWL**

**Timberline Land Surveying, Inc.**  
 38 West 100 North Vernal, Utah 84078  
 (435) 789-1365

**SHEET**  
**10**  
**OF 10**

**WORKSHEET**  
**APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 12/02/2005

API NO. ASSIGNED: 43-047-37461

WELL NAME: RAINBOW 11-24-12-20

OPERATOR: ENDURING RESOURCES, LLC ( N2750 )

CONTACT: AL ARLIAN

PHONE NUMBER: 303-350-5114

**PROPOSED LOCATION:**

SWNW 20 110S 240E

SURFACE: 1795 FNL 0618 FWL

BOTTOM: 1795 FNL 0618 FWL

UINTAH

UNDESIGNATED ( 2 )

LEASE TYPE: 4 - Fee

LEASE NUMBER: FEE

SURFACE OWNER: 4 - Fee

PROPOSED FORMATION: CSLGT

COALBED METHANE WELL? NO

INSPECT LOCATN BY: / /

Tech Review	Initials	Date
Engineering	DKD	1/11/06
Geology		
Surface		

LATITUDE: 39.84989

LONGITUDE: -109.2612

**RECEIVED AND/OR REVIEWED:**

☒ Plat  
☒ Bond: Fed[] Ind[] Sta[] Fee[]  
(No. RLB0008031 )  
☒ Potash (Y/N)  
☒ Oil Shale 190-5 (B) or 190-3 or 190-13  
☒ Water Permit  
(No. 43-8496 )  
☒ RDCC Review (Y/N)  
(Date: )  
☒ Fee Surf Agreement (Y/N)  
☒ Intent to Commingle (Y/N)

**LOCATION AND SITING:**

\_\_\_ R649-2-3.  
Unit \_\_\_  
☒ R649-3-2. General  
Siting: 460 From Qtr/Qtr & 920' Between Wells  
\_\_\_ R649-3-3. Exception  
\_\_\_ Drilling Unit  
Board Cause No: \_\_\_  
Eff Date: \_\_\_  
Siting: \_\_\_  
\_\_\_ R649-3-11. Directional Drill

COMMENTS:

*Needs Permit (12-14-05)*

STIPULATIONS:

*1. Spacing Ship  
2. STATEMENT OF BASIS  
3. Surface Csg Cont Ship*

RAINBOW 14-17  
 FED N 24-17  
 FED N 24-17

T11S R24E

RAINBOW H-24-12-20

20

RAINBOW H-24-23-20

USE FIELD

RAINBOW UNIT

ASPHALT WA

OPERATOR: ENDURING RES LLC (N2750)

SEC: 20 T. 11S R. 24E

FIELD: UNDESIGNATED (002)

COUNTY: UINTAH

SPACING: R649-3-2 / GENERAL SITING



Utah Oil Gas and Mining



PREPARED BY: DIANA WHITNEY  
 DATE: 5-DECEMBER-2005

**Field Status**  
 ABANDONED  
 ACTIVE  
 COMBINED  
 INACTIVE  
 PROPOSED  
 STORAGE  
 TERMINATED

**Unit Status**  
 EXPLORATORY  
 GAS STORAGE  
 NF PP OIL  
 NF SECONDARY  
 PENDING  
 PI OIL  
 PP GAS  
 PP GEOTHERML  
 PP OIL  
 SECONDARY  
 TERMINATED

**Wells Status**  
 GAS INJECTION  
 GAS STORAGE  
 LOCATION ABANDONED  
 NEW LOCATION  
 PLUGGED & ABANDONED  
 PRODUCING GAS  
 PRODUCING OIL  
 SHUT-IN GAS  
 SHUT-IN OIL  
 TEMP. ABANDONED  
 TEST WELL  
 WATER INJECTION  
 WATER SUPPLY  
 WATER DISPOSAL  
 DRILLING

**DIVISION OF OIL, GAS AND MINING  
APPLICATION FOR PERMIT TO DRILL  
STATEMENT OF BASIS**

**OPERATOR:** ENDURING RESOURCES, LLC  
**WELL NAME & NUMBER:** RAINBOW 11-24-12-20  
**API NUMBER:** 43-047-37461  
**LOCATION:** 1/4,1/4 SW/NW Sec: 20 TWP: 11S RNG: 24E 1795' FNL 618 FWL

**Geology/Ground Water:**

Enduring proposes to set 2,016 feet of surface casing cemented to the surface. The base of the moderately saline water is estimated at 3,400 feet. A search of Division of Water Rights records shows two water wells within a 10,000 foot radius of the center of section 20. Both wells are over a mile from the proposed location. The wells are owned by the BLM and no depth is listed. The surface formation at this location is the Uinta/Green River Formation transition. The Uinta Formation is made up of discontinuous sands interbedded with shales and are not expected to produce prolific aquifers. The Green River Formation is made up of interbedded limestones, shales and sandstones. Fresh water aquifers can be found in the Green River Formation and should be protected. The proposed surface casing should adequately protect any potentially useable aquifers.

**Reviewer:** Brad Hill **Date:** 12-21-05

**Surface:**

The predrill investigation of the surface was performed on 12/14/05. The surface and minerals of this location are private, both owned by American Gilsonite Company of Bonanza, Ut.. Mr. Jared Jackson of American Gilsonite was invited to and attended this investigation. He had no concerns regarding the construction of this location or the drilling of this well not covered in the Surface Use Agreement. The access road to be constructed, as planned on Topographic Map 'B', crosses 60 feet of BLM. The beginning of this road will be moved to the north where the existing road enters the 40 acres owned by American Gilsonite. Access will be constructed to the location beginning at this point. The selected location appears to be the best site for constructing a pad and drilling and operating a well in the immediate area. No significant stability problems are anticipated.

**Reviewer:** Floyd Bartlett **Date:** 12/19/05

**Conditions of Approval/Application for Permit to Drill:**

1. A synthetic liner with a minimum thickness of 16 mils with a felt subliner shall be properly installed and maintained in the reserve pit.

**ON-SITE PREDRILL EVALUATION**  
**Division of Oil, Gas and Mining**

OPERATOR: ENDURING RESOURCES, LLC  
WELL NAME & NUMBER: RAINBOW 11-24-12-20  
API NUMBER: 43-047-37461  
LEASE: FEE FIELD/UNIT: UNDESIGNATED  
LOCATION: 1/4,1/4 SW/NW Sec: 20 TWP: 11S RNG: 24E 1795' FNL 618 FWL  
LEGAL WELL SITING: 460 F SEC. LINE; 460 F 1/4,1/4 LINE; 920 F ANOTHER WELL.  
GPS COORD (UTM): 648754 E 4412334 N SURFACE OWNER: American Gilsonite Co.

**PARTICIPANTS**

Floyd Bartlett (DOGM), Douglas Hammond (Enduring Resources) Mike Stewart (Ponderosa Construction), Jared Jackson (American Gilsonite), Colby Kay (Timberline Land Surveying, Inc.)

**REGIONAL/LOCAL SETTING & TOPOGRAPHY**

The proposed Rainbow 11-24-12-20 well lies on a ridge separating the West Fork and Center Fork of Asphalt Draws. An existing recently improved oilfield development road runs along the ridge top east of the location. The location is approximately 13 miles south west of Bonanza Ut, and approximately 66 miles southwest of Vernal, UT. Access from Bonanza is by State Highway then Uintah County roads to the divide between the Center and West Forks of Asphalt Wash, a distance of 15.3 miles then north along this divide 3.7 miles and west along a road to be constructed approximately 600 feet to the proposed location.

Topography in the general area is broad canyon bottoms separated by steep and often ledgy side-slopes, which top out onto broad ridge tops. Frequent outwash plains and deposits occur along the sides of the major bottoms. The drainages of Asphalt Wash are broad somewhat gentle alluvial washes, which are dry except for spring runoff and sometimes-intense summer rainstorms. The Asphalt Wash drainages collectively run northerly to the White River about six miles to the north.

The proposed location is on top of an east-west rounded secondary ridge. It is approximately 600 feet west of the existing north south running road. The access road to be constructed as shown on the plat will be relocated north so as not to require a short right-of-way from the BLM. Topography surrounding the proposed location is gentle with a slight slope to the north.

**SURFACE USE PLAN**

CURRENT SURFACE USE: Wildlife, domestic sheep grazing and hunting.

PROPOSED SURFACE DISTURBANCE: Approximately 600 feet of new access road and construction of a well location 365'x 235' plus a reserve pit and soil stockpile storage outside the described area.

LOCATION OF EXISTING WELLS WITHIN A 1 MILE RADIUS: Several. See attached map from GIS database.

LOCATION OF PRODUCTION FACILITIES AND PIPELINES: All production facilities will be on location and added after drilling well. Approximately 600 feet of pipeline will follow access road and tie in with the pipeline along the road to the east.

SOURCE OF CONSTRUCTION MATERIAL: All construction material will be borrowed from site during construction of location.

ANCILLARY FACILITIES: None will be required.

WILL DRILLING AT THIS LOCATION GENERATE PUBLIC INTEREST OR CONCERNS?  
EXPLAIN: Unlikely. Oilfield activity is common in the area and is the dominant use.

#### **WASTE MANAGEMENT PLAN:**

Drilled cuttings will be settled into reserve pit. Liquids from pit will be allowed to evaporate. Formation water will be confined to storage tanks. Commercial contractor will handle sewage facilities, storage and disposal. Trash will be contained in trash baskets and hauled to an approved land fill.

#### **ENVIRONMENTAL PARAMETERS**

AFFECTED FLOODPLAINS AND/OR WETLANDS: None.

FLORA/FAUNA: Poorly vegetated pinion juniper site. A few annual mustard plants exist.  
Pronghorn, rodents, songbirds, raptors, elk, deer, bobcat, coyote.

SOIL TYPE AND CHARACTERISTICS: Light brown shaley sandy loam. Some small surface rock present.

EROSION/SEDIMENTATION/STABILITY: No stability problems are anticipated with the construction and operation of the location.

PALEONTOLOGICAL POTENTIAL: none observed.

#### **RESERVE PIT**

CHARACTERISTICS: 160' by 75' and 8' deep. The reserve pit is planned in an area of cut on the south west corner of the location. No stabilization problems are expected.

LINER REQUIREMENTS (Site Ranking Form attached): A liner will be required for reserve pit. Sensitivity score is 20 and a rating Level II.

#### **SURFACE RESTORATION/RECLAMATION PLAN**

As per landowner agreement, which is in place with American Gilsonite Co.

SURFACE AGREEMENT: In place.

CULTURAL RESOURCES/ARCHAEOLOGY: None required or requested. Surface is private ownership.

**OTHER OBSERVATIONS/COMMENTS**

Relocating the access road so as to miss the BLM was discussed. Jared Jackson representing American Gilsonite was asked if he had any concerns or questions not covered in the Surface Agreement. He had none. This predrill investigation was conducted on a cold sunny day.

**ATTACHMENTS**

Photos of site have been taken and placed on file.

Floyd Bartlett  
DOGM REPRESENTATIVE

12/14//2005 10:30 AM  
DATE/TIME

**Evaluation Ranking Criteria and Ranking Score  
For Reserve and Onsite Pit Liner Requirements**

<u>Site-Specific Factors</u>	<u>Ranking</u>	<u>Site Ranking</u>
Distance to Groundwater (feet)		
>200	0	
100 to 200	5	
75 to 100	10	
25 to 75	15	
<25 or recharge area	20	
Distance to Surf. Water (feet)		
>1000	0	
300 to 1000	2	
200 to 300	10	
100 to 200	15	
< 100	20	<u>0</u>
Distance to Nearest Municipal Well (feet)		
>5280	0	
1320 to 5280	5	
500 to 1320	10	
<500	20	<u>0</u>
Distance to Other Wells (feet)		
>1320	0	
300 to 1320	10	
<300	20	<u>0</u>
Native Soil Type		
Low permeability	0	
Mod. permeability	10	
High permeability	20	<u>10</u>
Fluid Type		
Air/mist	0	
Fresh Water	5	
TDS >5000 and <10000	10	
TDS >10000 or Oil Base Mud Fluid	15	
containing significant levels of hazardous constituents	20	<u>5</u>
Drill Cuttings		
Normal Rock	0	
Salt or detrimental	10	<u>0</u>
Annual Precipitation (inches)		
<10	0	
10 to 20	5	
>20	10	<u>5</u>
Affected Populations		
<10	0	
10 to 30	6	
30 to 50	8	
>50	10	<u>0</u>
Presence of Nearby Utility Conduits		
Not Present	0	
Unknown	10	
Present	15	<u>0</u>

**Final Score**      20      (Level II Sensitivity)

Sensitivity Level I = 20 or more; total containment is required.

Sensitivity Level II = 15-19; lining is discretionary.

Sensitivity Level III = below 15; no specific lining is required.



utah  
gov

State Online Services

Agency List

Business.utah.gov

Search Utah.gov

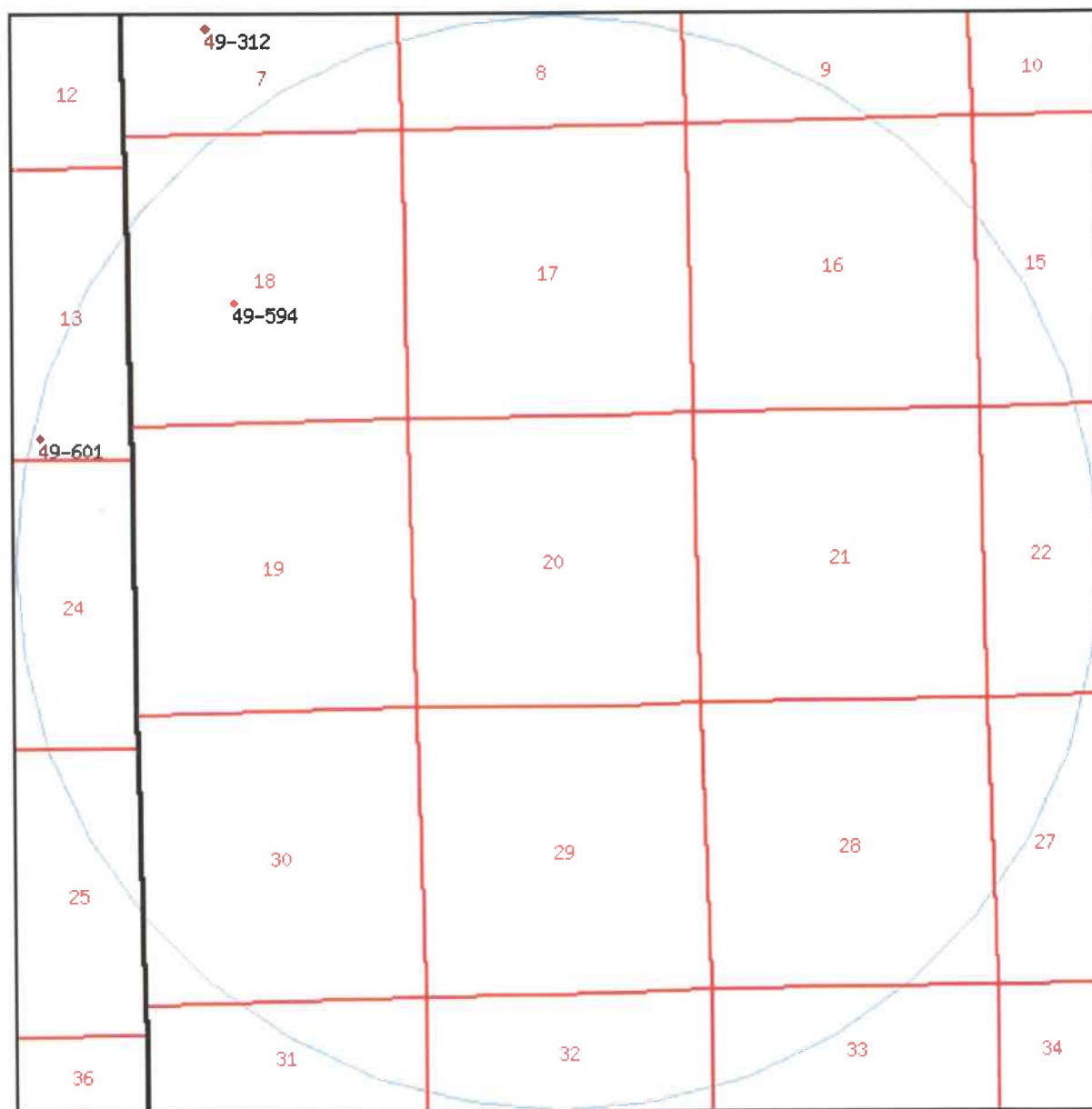


# UTAH DIVISION OF WATER RIGHTS

## WRPLAT Program Output Listing

Version: 2004.12.30.00      Rundate: 12/21/2005 02:23 PM

Radius search of 10000 feet from a point N2640 E2640 from the SW corner, section 20, Township 11S, Range 24E, SL b&m  
Criteria:wrtypes=W,C,E podtypes=U status=U,A,P usetypes=all



0 1300 2600 3900 5200 ft

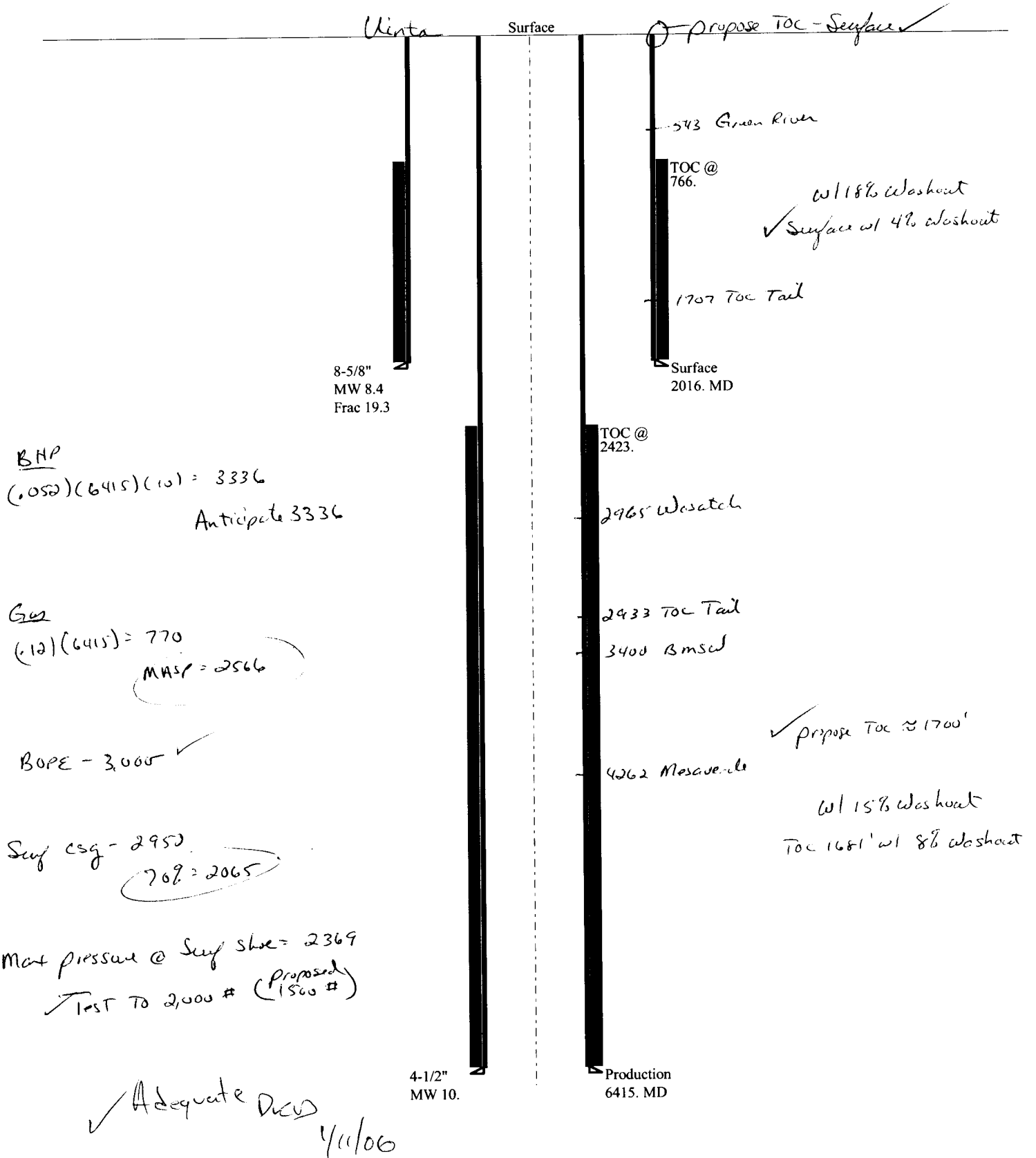
**Water Rights**

<b>WR Number</b>	<b>Diversion Type/Location</b>	<b>Well Log</b>	<b>Status</b>	<b>Priority</b>	<b>Uses</b>	<b>CFS</b>	<b>ACFT</b>	<b>Owner Name</b>
49-1547	Underground N400 W1700 SE 13 11S 23E SL		A	19950427	O	0.000	20.000	ROSEWOOD RESOURCES INC PO BOX 1668
49-1547	Underground S400 E1950 W4 18 11S 24E SL		A	19950427	O	0.000	20.000	ROSEWOOD RESOURCES INC PO BOX 1668
49-2177	Underground S678 E1528 W4 07 11S 24E SL		U	20040504	O	0.000	20.000	MCELVAIN OIL AND GAS PROPERTIES, INC. 1050 17TH STREET, SUITE 1800
49-312	Underground N1959 E1511 SW 07 11S 24E SL		P	19770304	S	0.000	1.000	VERNAL DISTRICT USA BUREAU OF LAND MANAGEMENT 170 SOUTH 500 EAST
49-594	Underground S400 E1950 W4 18 11S 24E SL		P	19340000	OS	0.015	0.000	USA BUREAU OF LAND MANAGEMENT 2370 SOUTH 2300 WEST
49-601	Underground N400 W1700 SE 13 11S 23E SL		P	19340000	OS	0.015	0.000	USA BUREAU OF LAND MANAGEMENT 2370 SOUTH 2300 WEST

[Natural Resources](#) | [Contact](#) | [Disclaimer](#) | [Privacy Policy](#) | [Accessibility Policy](#)

01-06 Enduring 11-24-12-J

Casing Schematic



Well name:

**01-06 Enduring 11-24-12-20**Operator: **Enduring Resources, LLC**String type: **Surface**

Project ID:

**43-047-37461**Location: **Uintah County****Design parameters:****Collapse**Mud weight: 8.400 ppg  
Design is based on evacuated pipe.**Minimum design factors:****Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**H2S considered? No  
Surface temperature: 65 °F  
Bottom hole temperature: 93 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 250 ft

Cement top: 766 ft

**Burst**Max anticipated surface  
pressure: 1,774 psi  
Internal gradient: 0.120 psi/ft  
Calculated BHP 2,016 psi

No backup mud specified.

**Tension:**8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.50 (B)

Tension is based on buoyed weight.

Neutral point: 1,762 ft

Non-directional string.

**Re subsequent strings:**Next setting depth: 6,415 ft  
Next mud weight: 10.000 ppg  
Next setting BHP: 3,332 psi  
Fracture mud wt: 19.250 ppg  
Fracture depth: 2,016 ft  
Injection pressure 2,016 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	2016	8.625	24.00	J-55	ST&C	2016	2016	7.972	97.1
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	880	1370	1.557	2016	2950	1.46	42	244	5.77 J

Prepared by: Clinton Dworshak  
Utah Div. of Oil & MiningPhone: 801-538-5280  
FAX: 810-359-3940Date: January 6, 2006  
Salt Lake City, Utah**Remarks:**Collapse is based on a vertical depth of 2016 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes.  
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

*Engineering responsibility for use of this design will be that of the purchaser.*

Well name:

**01-06 Enduring 11-24-12-20**Operator: **Enduring Resources, LLC**String type: **Production**

Project ID:

**43-047-37461**Location: **Uintah County****Design parameters:****Collapse**Mud weight: 10.000 ppg  
Design is based on evacuated pipe.**Minimum design factors:****Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**H2S considered? No  
Surface temperature: 65 °F  
Bottom hole temperature: 155 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,500 ft

Cement top: 2,423 ft

**Burst**Max anticipated surface  
pressure: 2,563 psi  
Internal gradient: 0.120 psi/ft  
Calculated BHP 3,332 psi

No backup mud specified.

**Tension:**8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.50 (B)

Non-directional string.

Tension is based on buoyed weight.

Neutral point: 5,456 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	6415	4.5	11.60	N-80	LT&C	6415	6415	3.875	148.7
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	3332	6350	1.905	3332	7780	2.33	63	223	3.52 J

Prepared Clinton Dworshak  
by: Utah Div. of Oil & MiningPhone: 801-538-5280  
FAX: 810-359-3940Date: January 6, 2006  
Salt Lake City, Utah**Remarks:**Collapse is based on a vertical depth of 6415 ft, a mud weight of 10 ppg. The casing is considered to be evacuated for collapse purposes.  
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

*Engineering responsibility for use of this design will be that of the purchaser.*



**State of Utah**

**Department of  
Natural Resources**

MICHAEL R. STYLER  
*Executive Director*

**Division of  
Oil, Gas & Mining**

JOHN R. BAZA  
*Division Director*

JON M. HUNTSMAN, JR.  
*Governor*

GARY R. HERBERT  
*Lieutenant Governor*

July 17, 2006

Enduring Resources, LLC  
475 17th St. Ste. 1500  
Denver, CO 80202

Re: Rainbow 11-24-12-20 Well, 1795' FNL, 618' FWL, SW NW, Sec. 20,  
T. 11 South, R. 24 East, Uintah County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. § 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-37461.

Sincerely,

A handwritten signature in black ink, appearing to read "Gil Hunt", with a stylized flourish at the end.

Gil Hunt  
Associate Director

pab  
Enclosures

cc: Uintah County Assessor

**Operator:** Enduring Resources, LLC  
**Well Name & Number** Rainbow 11-24-12-20  
**API Number:** 43-047-37461  
**Lease:** Fee

**Location:** SW NW                      **Sec.** 20                      **T.** 11 South                      **R.** 24 East

### **Conditions of Approval**

1. **General**

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for Permit to Drill.

2. **Notification Requirements**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- 24 hours prior to cementing or testing casing
- 24 hours prior to testing blowout prevention equipment
- 24 hours prior to spudding the well
- within 24 hours of any emergency changes made to the approved drilling program
- prior to commencing operations to plug and abandon the well

The following are Division of Oil, Gas and Mining contacts and their work telephone numbers (please leave a voice mail message if the person is not available to take the call):

- Dan Jarvis at (801) 538-5338
- Carol Daniels at (801) 538-5284 (spud)

3. **Reporting Requirements**

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)

5. Surface casing shall be cemented to the surface.



6. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

CONFIDENTIAL

FORM 9

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

## SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

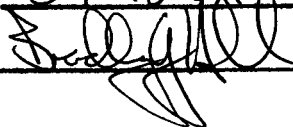
1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER: Fee
2. NAME OF OPERATOR: Enduring Resources, LLC		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: n/a
3. ADDRESS OF OPERATOR: 475 17th Street, Suite 1500 CITY Denver STATE CO ZIP 80202		7. UNIT or CA AGREEMENT NAME: n/a
PHONE NUMBER: (303) 350-5719		8. WELL NAME and NUMBER: Rainbow 11-24-12-20
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1795' FNL - 618' FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWNW 20 11S 24E S		9. API NUMBER: 4304737461
COUNTY: Uintah STATE: UTAH		10. FIELD AND POOL, OR WILDCAT: Undesignated

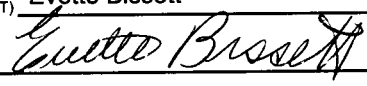
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: Request for APD Extension
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Enduring Resources, LLC respectfully request an extension to the expiration date of this Application for Permit to Drill ....

FROM: 7/17/2007  
TO: 7/17/2008Approved by the  
Utah Division of  
Oil, Gas and MiningDate: 07-18-07  
By: 

NAME (PLEASE PRINT) <u>Evette Bissett</u>	TITLE <u>Regulatory Affairs Assistant</u>
SIGNATURE <u></u>	DATE <u>7/13/2007</u>

(This space for State use only)

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JUL 17 2007

DIV. OF OIL, GAS &amp; MINING

**Application for Permit to Drill  
Request for Permit Extension  
Validation**

(this form should accompany the Sundry Notice requesting permit extension)

**API:** 4304737461  
**Well Name:** Rainbow 11-24-12-20  
**Location:** 1795' FNL - 618' FWL, SWNW, Sec 20, T11S-R24E  
**Company Permit Issued to:** Enduring Resources, LLC  
**Date Original Permit Issued:** 7/17/2006

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision.

Following is a checklist of some items related to the application, which should be verified.

If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes ☐ No ☐

Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes ☐ No ☒


Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes ☐ No ☒

Have there been any changes to the access route including ownership, or right-of-way, which could affect the proposed location? Yes ☐ No ☒

Has the approved source of water for drilling changed? Yes ☐ No ☒

Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes ☐ No ☒

Is bonding still in place, which covers this proposed well? Yes ☒ No ☐

  
Signature

7/13/2007  
Date

**Title:** Regulatory Affairs Assistant

**Representing:** Enduring Resources, LLC

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JUL 17 2007  
DIV. OF OIL, GAS & MINING

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 9

**CONFIDENTIAL**

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER: Fee
2. NAME OF OPERATOR: Enduring Resources, LLC		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: n/a
3. ADDRESS OF OPERATOR: 475 17th Street, Suite 1500 CITY Denver STATE CO ZIP 80202		7. UNIT or CA AGREEMENT NAME: n/a
PHONE NUMBER: (303) 350-5114		8. WELL NAME and NUMBER: Rainbow 11-24-12-20
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1795' FNL - 618' FWL		9. API NUMBER: 4304737461
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWNW 20 11S 24E S		10. FIELD AND POOL, OR WILDCAT: Undesignated
COUNTY: Uintah		STATE: UTAH

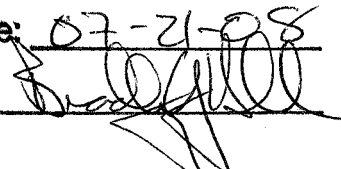
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA			
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	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

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FROM: 7/18/2008  
TO: 7/18/2009

Approved by the  
Utah Division of  
Oil, Gas and Mining

Date: 07-21-08  
By: 

NAME (PLEASE PRINT) Alvin R. (Al) Arlian	TITLE Landman
SIGNATURE 	DATE 6/25/2008

(This space for State use only)

**COPY SENT TO OPERATOR**

Date: 7-23-2008

Initials: KS

(5/2000)

(See Instructions on Reverse Side)

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**JUL 18 2008**

**DIV. OF OIL, GAS & MINING**

RESET

**Application for Permit to Drill  
Request for Permit Extension  
Validation**

(this form should accompany the Sundry Notice requesting permit extension)

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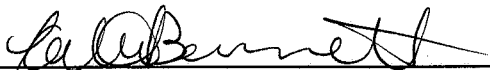
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Is bonding still in place, which covers this proposed well? Yes ☒ No ☐

  
Signature

6/25/2008

Date

Title: Administrative Assistant

Representing: Enduring Resources, LLC

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JUL 18 2008

DIV. OF OIL, GAS & MINING



JON M. HUNTSMAN, JR.  
Governor

GARY R. HERBERT  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

July 30, 2009

Enduring Resources, LLC  
475 17<sup>TH</sup> Street Ste 1500  
Denver, CO 80202

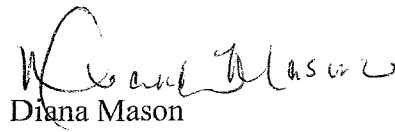
Re: APD Rescinded – Rainbow 11-24-12-20, Sec. 20, T.11S, R. 24E  
Uintah County, Utah API No. 43-047-37461

Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on July 17, 2006. On July 18, 2007 and July 21, 2008, the Division granted a one-year APD extension. No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective July 30, 2009.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,



Diana Mason  
Environmental Scientist

cc: Well File  
Brad Hill, Technical Service Manager

